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DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE A Q PROGRAM

AIR QUALITY PERMIT TO CONSTRUCT APPLICATION FORM DOCUMENTATION
Snake River Trailer Company
315 Kit Avenue
Caldwell, Idaho 83605

March 22, 2007

Prepared for: Snake River Trailer Company
P.O. Box 879
Caldwell, Idaho 83606

For the Facility at: 315 Kit Avenue
Caldwell, Idaho 83605

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3-22-2007

TORF ENVIRONMENTAL MANAGEMENT

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AIR QUALITY PERMIT TO CONSTRUCT APPLICATION
Snake River Trailer Company
315 Kit Avenue
Caldwell, Idaho 83605

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1. SUMMARY

Snake River Trailer Company (Snake River) proposes to construct and operate a new horse and cargo trailer manufacturing facility at 315 Kit Avenue in Caldwell, Idaho. New air emitting sources at the facility include two paint booths and one curing room. Each booth and the Dry Room are equipped with natural gas-fired air heaters. The results of the inventory of potential emissions and calculation of estimated regulated air emissions demonstrate that the facility is eligible to receive an Idaho Air Quality Permit to Construct (PTC).

The facility will not be a major facility for the purposes of the Permit to Construct requirements.[1] Emission calculations demonstrate that permit-controlled NSR regulated pollutant rates are less than 100 tons per year. Controlled emissions of individual Hazardous Air Pollutants (HAPs) are less than 10 tons per year. Controlled emissions of combined HAPs are less than 25 tons per year. Therefore, the facility is not a major facility (qualifies as "synthetic minor") in terms of Tier I operating permit requirements.[2] Uncontrolled emissions of most Toxic Air Pollutants (TAPs) are either below screening emission levels or acceptable ambient concentrations.[3] Controlled emissions of all TAPs are below acceptable ambient concentrations.[4]

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[1] Idaho Department of Environmental Quality (IDEQ), Rules For The Control Of Air Pollution In Idaho, IDAPA 58 Title 01, Chapter 01, Section 200.
[2] Ibid., Section 008.10.
[3] Ibid., Section 210.05-06.
[4] Ibid., Section 210.08.

2. GENERAL INFORMATION – FORM GI DOCUMENTATION

Snake River Trailer management currently operates a similar trailer manufacturing facility at 1508 E Chicago Street in Caldwell. The Chicago Street facility, C&B Quality Trailer Works, operates under PTC No. 027-00069 issued June 7, 1999. The Chicago Street facility is a synthetic minor, with annual coating use rates limited to keep xylene emissions below 10 tons per year.

3. GENERAL EMISSION UNITS – FORM EUO DOCUMENTATION

There are four General Emission Units associated with this PTC application. Three are natural gas-fired air heaters. The fourth is the Dry Room. None of the General Emission Units are equipped with emission control devices. The process equipment is shown on Figure 3-1: *Equipment Layout* (attached).

3.1 Paint Booth Air Heaters

Two of the air heaters (AIRHTR-1 and AIRHTR-2) are identical, direct air heaters manufactured by Bananza with a design output duty of 2.295 MMBtu/hr. The Bananza units are custom made for Spray System booths (see attached electronic mail correspondence). The heaters are located on the inlets to the paint booths. The heater emissions exit each paint booth via 34" roof vents (BOOTH1-1, BOOTH1-2, BOOTH2-1 and BOOTH2-2 on Plot Plan). The vents exhaust vertically and are covered by a hinged flap that fully opens when the booth blowers are on. The paint booth heaters are used as needed during spraying to heat outside air to 70°F.

When spraying of a piece is complete, the operator may choose to exit the booth and allow for a short "bake" cycle to cure (harden) the fresh paint. During the automated bake cycle, the heater increases the inlet air temperature to 120-140°F for approximately 15 minutes to accelerate curing. The bake cycle is followed by a cool-down cycle when the heater shuts off and allows the flow of inlet air to cool the booth. During off hours the heaters are not used at all. However, for this PTC application, unrestricted emissions were calculated assuming continuous operation at the heaters' design duty.

3.2 Dry Room Air Heater

The third air heater (DRYHTR-1) is a Reznor Model HX225E-8 indirect air heater with a design input duty of 225,000 Btu/hr. A manufacturer's specification sheet is attached. The heater exhaust is routed through a 8"vertical roof vent (DRYHTR on Plot Plan). The heater is located on the Dry Room air recirculation line. The Dry Room is used to cure (harden) the coating of a newly painted piece. During the automated cure cycle, the heater increases the inlet air temperature to 120-140°F for approximately 15 minutes to accelerate curing of the coating. The heater is used intermittently during the operating day. However, for this PTC application, unrestricted emissions were calculated assuming continuous operation at the heater's design duty.

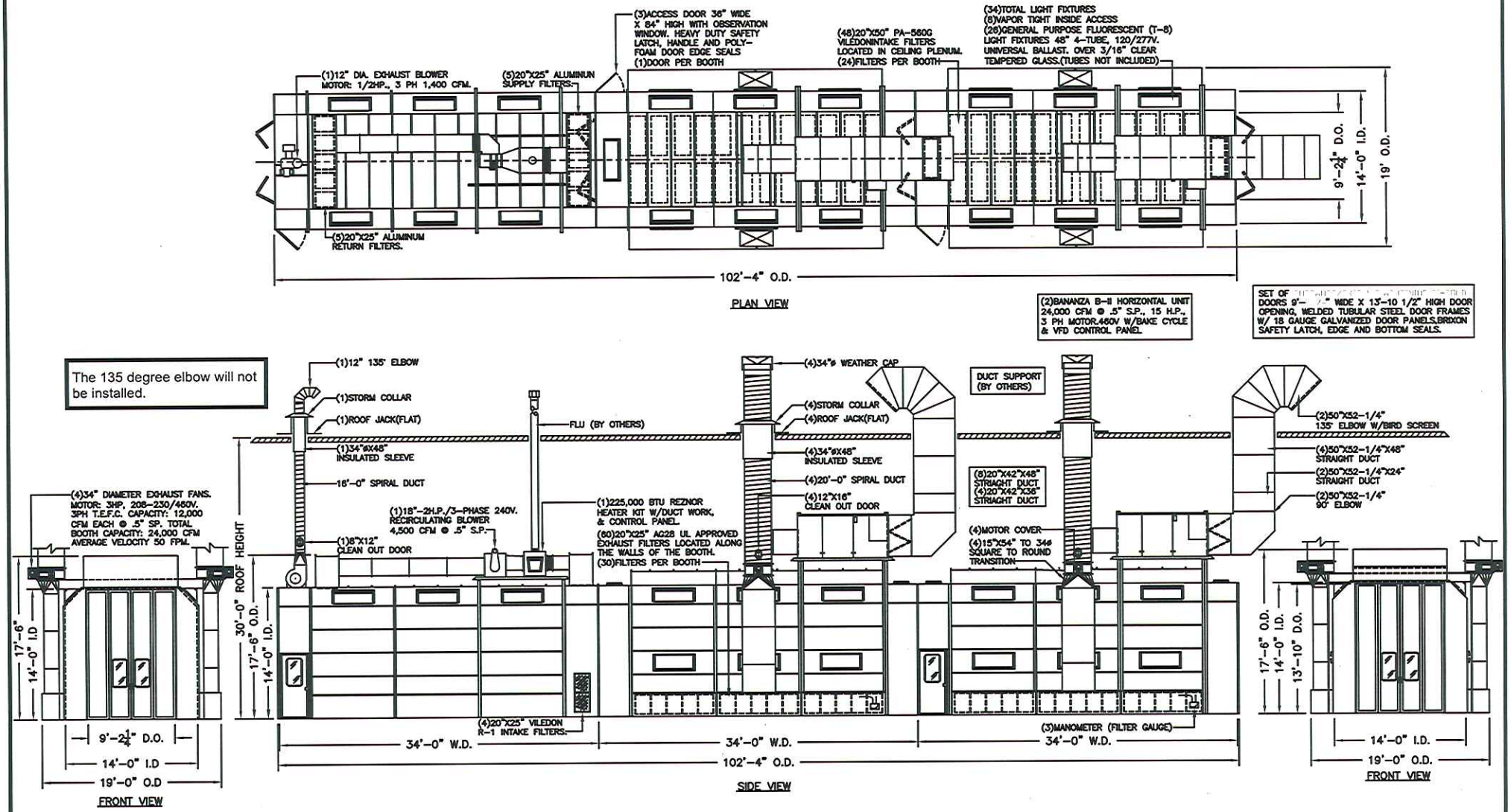
3.3 Dry Room

The fourth General Emission Unit is the Dry Room (DRYRM). Emissions generated by the curing of the coatings in the Dry Room are emitted via an exhaust fan. This fan is provided by Spray Systems in their booth package and is rated at 1400 CFM. The fan exhaust is routed through a 12"

diameter, vertical roof vent (DRYROOM on Plot Plan). The 135° elbow shown on the equipment layout (Figure 3-1), will not be installed. Instead a vertical stack with a non-restrictive weather guard will be installed.

REV.	DESCRIPTION	BY	DATE

Figure 3-1: Equipment Layout



NOTES:
1.) BOOTH CONSTRUCTION TO MEET REQUIREMENTS OF FIRE, AIR POLLUTION, AND O.S.H.A. CODES.LOCAL CODES WILL REQUIRE FIRE SPRINKLERS IN BOOTH.
2.) PANEL: PRE-FAB 18 GAUGE GALVANIZED STEEL PRE-PUNCHED FOR NUT AND BOLT CONSTRUCTION.

APPROVAL DRAWING		SPRAY SYSTEMS INC. 1363 E. GRAND AVE. POMONA, CA 91766 (909) 623-6944	TITLE: CUSTOM MODIFIED DOWNDRAFT INLINE BOOTH W/ATTACHED DRY ROOM MODEL MD-1000-DT
APVD BY:	DATE APVD:		
MODEL NO. MD-1000-DT	DIST: FINISHING CONSULTANTS	NOTICE: THIS DRAWING IS THE PROPERTY OF SPRAY SYSTEMS, SUBMITTED ON THE CONDITION THAT THE PLANS AND DESIGNS THEREIN BE HELD CONFIDENTIAL AND IS SUBJECT TO RETURN ON DEMAND.	DRAWN BY: BORIS ORELLANA / DATE: 06/01/06 / DWG NO. 063023
JOB NO. 8147	CUST: SNAKE RIVER TRAILER		SHEET: 1 OF 1 / SCALE: DRAWN TO SCALE

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A DIVISION OF MANUFACTURERS' AGENTS NORTHWEST, INC.

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98204
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TOLL FREE FAX: 1.877.318.1185

January 18, 2006

C & B Trailer
C/O JEFF MOLL
PPG PAINT

Per our conference call today, I have revised my quote to show an option price for making the spray booth and dry room with 14' ceiling heights. As well, I have gone back to Spray Systems for any additional discounts they would offer and have calculated our best pricing that we can offer on this project. Please review and call me with any questions or if you wish to proceed with this project. We can also provide a mechanical installation cost for all of the equipment quoted upon request.

EACH BOOTH CONSISTS OF THE FOLLOWING:

- Both Booths and Dry Room will be Attached Inline through adjoining Drive-Thru Doors
- Each Booth consists of the Following Specifications:

DIMENSIONS

- Inside Dimensions: 34'-0" Long x 14'-0" Wide x 10'-0" High
- Outside Dimensions: 34'-4" Long x 17'-11" Wide x 11'-8" High

BOOTH CONSTRUCTION

- 18 gauge G90 galvanized steel
- Pre-punched holes on 6" centers
- Easy nut and bolt assembly
- *Structural Support for AMU

  The booth is designed to support the AMU on top of the booth

PRODUCT DOORS

- Drive Thru Door Style: Solid Bi-Fold Doors
- Front & Rear Solid Doors (1 Set of Doors will attach the (2) Booths & Doors on (1) booth will attach to Dry Room)
- Net Opening: 9'-8 1/2" high x 9'-2 1/4" wide
- Structural tube frame for strength
- Continuously welded for corrosion protection
- Leak proof wiper type seals at the base
- Heavy Duty safety latches

SIDE ACCESS DOOR

- (1) Access Door measuring 36" x 84" with
- (1) Observation window measuring 18" x 36"
- Door safety latch

LIGHTING

- (14) General Purpose High Efficiency, 48" 4-tube, Universal Ballast
- Industrial rated - White Coated Enamel
- CUL Approved
- Electronic ballast for energy efficient T-8 tubes (Tubes NOT Included)
- Universal Sockets
- Rear hinged access panel for easy maintenance
- Set in framed opening with 3/16" clear tempered glass

EXHAUST FANS AND MOTORS

- (2) Spray Systems, Heavy Duty 34" Diameter, Tubeaxial Exhaust Fans
- Non sparking blade, enclosed belts and bearings
- EACH Capable of exhausting 12,000 CFM @ 1/2" S.P.
- (2) 3 HP TEFC Motors 208/230-460V-60 hz-3PH
- Total CFM: 24,000
- Average Velocity: 50 FPM (Empty Booth)

INTAKE FILTERS

- Viledon Intake Filters PA560G
- UL Approved
- 20" x 50" with built in reinforcement frames
- The supply filters are located on the booth's top air supply plenum
- The plenum runs down the length of the booth

DRAFT GAUGE

- (2) Dwyer Mark II Manometer to indicate replacement of filters

EXHAUST FILTERS

- American Air Filters, AG28
- 20" x 25" with holding hardware
- UL Approved
- The exhaust filters are located on the booth's (2) side exhaust plenums

  The plenums run the length of the spray booth

ATTACHED DRY ROOM

- Inside Dimensions: 14'-0" Wide x 10'-0" High x 34'-0" Deep
- Outside Dimensions: 14'-11" Wide x 11'-2" High x 34'-2" Deep

DOOR CONSTRUCTION

- Drive Thru Style, Sharing (1) Set of Adjoining Doors with Paint Booth
- Net Opening: 9'-8 1/2" High x 9'-2 1/2" Wide (door ht. changes to 13-10" on 14' high booths)
- Solid Steel Bi-Fold Doors

ACCESS DOOR

- (1) Access door measuring 36" x 84" with
- (1) Observation window measuring 18" x 36"
- Heavy Duty safety latch

LIGHTING

- (6) General Purpose High Efficiency, 48" 4-tube, Universal Ballast
- Industrial rated - White Coated Enamel
- CUL Approved
- Electronic ballast for energy efficient T-8 tubes (Tubes NOT Included)
- Universal Sockets
- Rear hinged access panel for easy maintenance
- Set in framed opening with 3/16" clear tempered glass

EXHAUST FAN & MOTOR (DRY ROOM)

- (1) Heavy duty 12" Exhaust Blower
- Non sparking blade, enclosed belts and bearings
- Capable of exhausting 1,400 CFM at 1/4" Static Pressure
- (1) 1/2 HP TEFC Motor
- 208/230/460 Volt, 60 HZ, 3 Phase

DRAFT GAUGE

- (1) Dwyer Mark II manometer to indicate replacement filters

INTAKE FILTERS

- (4) Viledon intake filters, Type R-1
- 20" x 25" with built in reinforcement frames

MISCELLANEOUS

- All necessary hardware and caulking is included
- Exploded view CAD assembly drawing
- Booth components labeled and identified with a computer generated label to correspond to the exploded CAD view assembly drawing for easy installation

***OPTIONAL EXHAUST DUCT PACKAGES**

- Exhaust Duct Packages are NOT Included In Base Price
- Meets all Uniform Fire Code Requirements
- EACH 34" Exhaust Duct Package includes: (for a 30' High Roof) (2 Packages per Booth)

  32' Spiral Duct
  1 - Square to Round Transition
  1 - Insulated Sleeve
  1 - 34" Diameter Weather Canopy
  1 - Roof Jack & Storm Collar
  1 - Motor cover
  1 - Clean Out Door

*OPTIONAL AIR MAKE-UP UNITS

DESCRIPTION

- Each Unit Includes the following: (2 Required)
- Horizontal mount, direct-fired natural gas air make up unit
- 24,000 CFM at 1/2" static pressure, 15 HP, 3 phase motor
- Customer MUST SPECIFIY VOLTAGE: 208/230 or 460

FEATURES

- Remote control with fan and burner on/off switch and temperature set point dial
- 120,000 to 2,295,000 BTU per hour modulating burner
- Approximate 85 degree Fahrenheit temperature rise during spray cycle
- Inlet hood with washable aluminum intake filters
- AGA approved gas train
- Weatherized for outdoor installation
- Natural gas fired, require 11" - 14" water column inlet gas pressure
- Motor started and disconnect included with base unit
- Supply Duct included (for a 30' High Roof)
- AMU Stand Included (for mounting on the booth roof)

BAKE CYCLE

- Bake cycle with 145 Fahrenheit maximum recommended operating temperature
- Purge & bake cycle timers
- Cool down and shut off timer
- Digital temperature read out
- *Includes VFD Control Panel to Operate both Booth & AMU

*OPTIONAL RE-CIRCULATION HEATER

- Includes the Following: (for Dry Room)
- Recirculation Duct Work
- Main Control Panel

  Main Disconnect
  480/60/3ph Electrical Service
  Start/Stop Push Button
  Purge Timer
  Temperature Controller
- Rail mounted unit for easy installation
- Inlet register with filter frame
- Discharge Register
- 175,000 BTU Horizontal Indirect Heater Assembly
- Main Recirculation Blower

  2,500 CFM @ .25" S.P.
  2 HP Motor 208-230/460V 60hz 3 Phase

From: "Chuck Gillette" <chuck@finishingconsultants.com>
Subject: FW: Snake River Exhaust Piping
Date: Fri, February 2, 2007 5:42 pm
To: slstine@torf.us
Cc: "'Ty Crowder'" <ty@finishingconsultants.com>,"'Bill Mellon'" <bill@finishingconsultants.com>

Hello Sarah. The Weather cap for the Snake River project is exactly as shown on the drawings that we have provided to Snake River. For lack of other verbage, it is a "Flapper Door" style of weather canopy. I have no idea what the Chicago St. modeling is. There is no blockage of velocity or flow.

The AMU/Heater portion of the package does not fit any specific model that you can get off of a piece Bonanza literature. The CFM specs are listed on the sales invoice and confirmation and the Spray Systems drawings. The Bonanza B2000 model set up for 24,000 cfm is what is listed on the Spray Systems Drawings.

Chuck Gillette

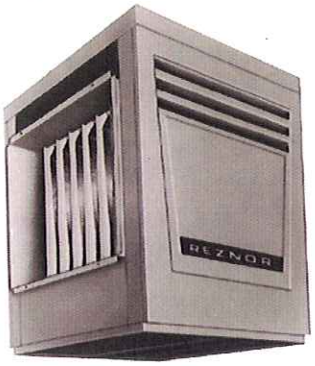
Reznor Catalog

- Unit Heater
- Air Turnover
- Blower Cabinets
- Condensing Units
- Cooling
- Direct Fired
- Electric Heaters
- Electric Infrared
- Energy Recovery
- Gas Infrared
- Heating/Cooling Makeup Air
- Hydronic
- Indoor Duct Furnace
  - EEDU
  - HEEDU
  - HSC
  - HX
  - SC
  - X
- Indoor Packaged
- MISC
- Outdoor Duct Furnace
- Outdoor Packaged

Reznor European Web Site
Used-Oil-Fired Heaters

- **Click on a Category to view the Reznor Models.**
- **Links below will move you back & forward**

NOTE: Weights listed are net weights for base unit only, options can change unit weights significantly. For option weights, please consult the printed catalog or your Reznor Representative.



Reznor® HX Series High CFM Duct Furnaces are designed to provide **80% thermalefficiency** for indoor applications with gravity venting. They are certified for use with natural or propane gas, as specified, in sizes from 75,000through 400,000 BTUH input.

These models are used as heating components in heating, heating/cooling, or makeup air systems and require a separate blower system for air delivery. The furnace has a Reznor® Thermocore® aluminized steel heat exchanger with ventun-design tubes. The die-formed burners are of aluminized steel and include flared ports with a stainless steel insert.
The HX Model does not include finger baffles and is approved for a temperature rise range of 20°F to 75°F.
Standard features include a manual match-lit pilot and a single-stage,24-volt gas valve. Model HX units are wired for field connection to aremote 24-volt thermostat for automatic operation. Each unit is provided with all required limit and safety controls, including an energy cutoff (ECO)and a blocked vent shut-off system.

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Reznor Catalog

- Unit Heater
- Air Turnover
- Blower Cabinets
- Condensing Units
- Cooling
- Direct Fired
- Electric Heaters
- Electric Infrared
- Energy Recovery
- Gas Infrared
- Heating/Cooling Makeup Air
- Hydronic
- Indoor Duct Furnace
  - EEDU
  - HEEDU
  - HSC
  - HX
  - SC
  - X
- Indoor Packaged
- MISC
- Outdoor Duct Furnace
- Outdoor Packaged

- Reznor European Web Site
- Used-Oil-Fired Heaters

- **Click on a Category to view the Reznor Models.**
- **Links below will move you back & forward**

NOTE: Weights listed are net weights for base unit only, options can change unit weights significantly. For option weights, please consult the printed catalog or your Reznor Representative.

Catalog >> Indoor Duct Furnace Model List >> Model HX

Model Detail | Standard Features | Optional Features | Performance Info | Dimension Info | Literature

Size	Efficiency	Input MBH	Output MBH	Number of Blowers /Fans	Blower/Fan Size (In.)	Minimum CFM	Maximum CFM
75	80%	75	60	0	0	735	2765
100	80%	100	80	0	0	980	3685
125	80%	125	100	0	0	1225	4605
150	80%	150	120	0	0	1475	5530
175	80%	175	140	0	0	1720	6450
200	80%	200	160	0	0	1965	7370
225	80%	225	180	0	0	2210	8295
250	80%	250	200	0	0	2455	9215
300	80%	300	240	0	0	2945	11060
350	80%	350	280	0	0	3440	12900
400	80%	400	320	0	0	3930	14745

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Reznor Catalog

- Unit Heater
- Air Turnover
- Blower Cabinets
- Condensing Units
- Cooling
- Direct Fired
- Electric Heaters
- Electric Infrared
- Energy Recovery
- Gas Infrared
- Heating/Cooling Makeup Air
- Hydronic
- Indoor Duct Furnace
  - EEDU
  - HEEDU
  - HSC
  - HX
  - SC
  - X
- Indoor Packaged
- MISC
- Outdoor Duct Furnace
- Outdoor Packaged

- Reznor European Web Site
- Used-Oil-Fired Heaters

- **Click on a Category to view the Reznor Models.**
- **Links below will move you back & forward**

NOTE: Weights listed are net weights for base unit only, options can change unit weights significantly. For option weights, please consult the printed catalog or your Reznor Representative.

Catalog >> Indoor Duct Furnace Model List >> Model HX

Model Detail	Standard Features	Optional Features	Performance Info	Dimension Info	Literature
Size:	Weight (lb.)	Length (In.)	Width (In.)	Height (In.)	Vent Dia
75	150	28	19-1/4	32-1/4	5" Rd
100	150	28	19-1/4	32-1/4	6" Rd
125	163	28	22	32-1/4	7" Ov
150	182	28	27-1/2	32-1/4	8" Ov
175	186	28	27-1/2	32-1/4	8" Ov
200	224	28	33	35-1/4	8" Rd
225	231	28	33	35-1/4	8" Rd
250	276	28	41-1/4	35-1/4	10" Ov
300	286	28	41-1/4	35-1/4	10" Ov
350	320	28	46-3/4	35-1/4	12" Ov
400	355	28	52-1/4	35-1/4	12" Ov

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4. SPRAY PAINT BOOTHS – FORM EU3 DOCUMENTATION

Snake River will be installing two new paint booths at the Kit Avenue facility for the application of primer and topcoat to trailer components. The first booth will be used typically for primer application while the second booth will be used typically for topcoat application. The booths and Dry Room are connected with pass-through doors so targets can be easily moved from the primer booth to the topcoat booth and then into the Dry Room.

4.1 Paint Booth Equipment

The booth emissions contain the booth heater combustion gases, volatiles from the sprayed coatings, and any overspray that is not captured by the booth filters. Each booth is equipped with two exhaust fans, which draw booth air through the outlet filters installed along each wall and up, out of the booth. The fans are manufacturer by Spray Systems and are rated at 12000 CFM each. The booth emissions are exhausted via two 34" roof vents per booth (BOOTH1-1, BOOTH1-2, BOOTH2-1 and BOOTH2-2). The vents exhaust vertically and are covered by a hinged flap that fully opens when the booth blowers are on.

Each spray booth is equipped with American Air Filter AG-28 paint arrestor pads on the exhaust plenums. These filters have been tested and found to capture 98.13% of overspray. Manufacturer and test data are attached. The filter area in each booth is 104 square feet (30 filters).

In order to reduce paint use and emissions, Snake River Trailer will be installing low pressure, high efficiency paint guns and utilizing electrostatic application in the two new paint booths. Manufacturer information sheets for the spray guns are attached. The spray system supplier, Finishing Consultants, reports retention efficiency of 50-65% for this equipment and application method.[5] A conservative (maximizes emissions) retention efficiency of 50% was used for the emission estimations included in this application.

4.2 Paint Booth Sprayed Coatings

In order to minimize emissions of xylene and volatile organic compounds, while maintaining product quality and maximizing production at the Kit Avenue facility, Snake River is planning on switching to a new primer or topcoat or possibly both. However, if product quality cannot be maintained with the new paints, Snake River would like to maintain the option of using the same paints that are permitted at the Chicago Street facility.

Snake River uses paints manufactured by PPG. The possible combinations to be used at the Kit

[5] Project Communication (via E-mail), Ty Crowder, Finishing Consultants, to Sarah Stine, TORF Environmental Management, January 17, 2007.

Avenue facility are listed below in Table 4-1. The "Delstar Mix" paint mix (currently in use at the Chicago Street facility) uses a DP- primer and a DAR- topcoat. The topcoat contains 15-70% xylene (per the MSDS) and is the major contributor to xylene emissions at the Chicago Street facility. The Delstar DP-primer also contains some xylene, but at a lower concentration. PPG has developed a lower Volatile Organic Compound (VOC) paint mix called the Essential line. The components of the "Essential Mix" line are detailed below and include ES- topcoats and primers. The most probable paint mix is shown below under the "Combo Mix" heading. Because of the good performance results Snake River Trailer has experienced with the DP- primers, they are most interested in using that primer with the ES- topcoats. This Combo Mix would allow Snake River to paint more units while keeping total xylene emissions well below 10 tons/year, and maintaining synthetic minor facility status.

Table 4-1: Kit Avenue Facility Proposed Paint Mixes

Paint Name	**Delstar Mix**	**Essential Mix**	**Combo Mix**
Primer	DP50LF Gray DP90LF Black	*ASP 901 Black*	DP50LF Gray DP90LF Black
Primer Catalyst	DP401LF	None	DP401LF
Topcoat	DAR8000 White DAR9000 Black	*ESSS9000 Black* *ESSS903653 White*	*ESSS9000 Black* *ESSS903653 White*
Topcoat Activator	None	*ESX510*	*ESX510*
Topcoat Hardener	DXR80	*ESH200*	*ESH200*
Topcoat Reducer	DTR600 DTR602 DT870	None	None
Thinner/Cleaner	DTL10	DTL10	DTL10

The criteria, HAP and TAP emissions associated with each paint mix are estimated in Tables 5-3a to 5-5b and are included in Section 5. Details of those calculations are also provided in Section 5.

4.3 Proposed Annual Permit Limits

Based on the results of the emission calculations for each of the mixes, permit limits are proposed which limit the use rate of each of the paint mix components. The proposed annual limits are shown in Table 4.2, below.

Table 4-2: Kit Avenue Facility Proposed Annual Permit Limits

Product	Use	Maximum Use Rate (gallons/year)			Permit Limit
		Delstar Mix	Essential Mix	Combo Mix	
ASP-#	Primer	--	4000	--	4000 gal/yr
DAR-#	Topcoat	3075	--	--	3075 gal/yr
DP-#LF	Primer	1538	--	3556	3556 gal/yr
DP401LF	Catalyst	769	--	1778	1778 gal/yr
DTR-60#	Reducer	2306	--	--	2306 gal/yr
DT870	Reducer	500	--	--	500 gal/yr
DTL10	Thinner	1560	1560	1560	1560 gal/yr
DXR80	Hardener	384	--	--	384 gal/yr
ESH200	Hardener	--	1667	1667	1667 gal/yr
ESSS9000	Topcoat	--	9000	9000	9000 gal/yr
ESSS903653	Topcoat		1000	1000	1000 gal/yr
ESX510	Activator	--	1667	1667	1667 gal/yr
Xylene		9.9 tons/yr	0.3 tons/yr	3.0 tons/yr	9.9 tons/yr

For the Delstar Mix and consistent with the Chicago Street facility, a limiting pollutant (the limit being the threshold between minor and major facility classification) is xylene at 9.9 tons/year. Keeping xylene emissions below 10 tons/year sets the allowable annual use rate of the DAR topcoats and thus the allowable use rates of the associated topcoat additives, primer and primer additives. For the Essential and Combo paint mixes that use the low-xylene topcoat, Snake River proposes tripling the topcoat volumetric use limit over the Delstar Mix in order to cover possible future production needs. The resulting use rates of the additives and primers stem from the new topcoat usage rate. For these mixes, there is no limiting pollutant to maintain minor facility status.

Xylene is the only specific chemical component with a permit limit. Including a xylene limit in the permit will allow more DP- primer and catalyst to be used in the event Snake River utilizes the Essential or Combo Mixes, but will prevent too much DP-primer from being used if Snake River uses the Delstar Mix. This is discussed further in Section 5.

4.4 Proposed Daily Permit Limits

The proposed daily limits for the various paint mixes are shown below in Table 4-3. With the booth emission control filters in place, daily limits are not necessary to keep criteria pollutants within acceptable levels. However, for the Essential topcoat and additives, daily limits are necessary to keep the ambient concentrations of parachlorobenzotrifluoride (PCBTF) within the acceptable ambient concentration (AAC). PCBTF is not a listed 58.01.01 TAP. However, upon inquiry, IDEQ

determined that it should be considered a non-carcinogenic TAP and established an AAC of 0.253 mg/m^3.[6]

For the Delstar primer and topcoat mixes and the Essential primer mix, the maximum use rates represent the components being sprayed in the required mix ratios at the spray guns' maximum 24-hour output. Daily permit limits are not required for these components.

Table 4-3: Kit Avenue Facility Proposed Daily Permit Limits

Product	**Use**	**Maximum Use Rate (gallons/day)**			**Permit Limit**
		Delstar Mix	**Essential Mix**	**Combo Mix**	
ASP- #	Primer	--	*270*	--	
DAR- #	Topcoat	*144*	--	--	
DP- #LF	Primer	*180*	--	*180*	
DP401LF	Catalyst	*90*	--	*90*	
DTR-60#	Reducer	*108*	--	--	
DT870	Reducer	*72*	--	--	
DTL10	Thinner	15	15	15	15 gal/day
DXR80	Hardener	*18*			
ESH200	Hardener	--	17	17	17 gal/day
ESSS9000	Topcoat	--	68	68	68 gal/day
ESSS903653	Topcoat		34	34	34 gal/day
ESX510	Activator	--	17	17	17 gal/day
Note: Rates in italics are based on spray gun daily (24 hour) capacity.					

[6] Project Communication (via telephone), Robert Wilkosz and Carl Brown, IDEQ, and Sarah Stine, TORF Environmental Management, November 6, 2006.

AAF INTERNATIONAL *Better Air is Our Business®*

AmericanAirFilter®
AG-28

Fiberglass Paint Arrestor Pads

- ***Effectively removes paint overspray solids of all types - lacquer, air dry or baked enamel.***
- ***Protect exhaust ducts, fans, and motors from paint build-up.***
- ***Clean exhaust air is discharged to the atmosphere.***
- ***Economical to use.***

Open Weave Fiber Pattern Holds More Paint

AG-28 pads are designed exclusively to collect paint overspray. They are made from continuous filament glass fibers with an open weave pattern that allows particles to penetrate deep into the pad. Paint is collected throughout the full depth, extending pad life and reducing costs. A skin backing on the air leaving side serves as a final barrier to prevent paint and other coatings from penetrating through the media.

Smooth Airflow Through Booth Prevents "Fogging"

A specially formulated thermoset resin provides high compression strength preventing AG-28 pads from collapsing and face-loading as they become saturated. Air continues to flow smoothly through the pads preventing "fogging" or misting of paint particles in the booth. Overspray is drawn into the pads so that it does not settle on spray guns, walls, floors, or conveyors. Proper airflow assures healthier working conditions in conformance to OSHA standards.

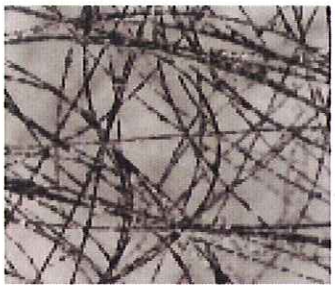
Cleaner Exhaust Air — Fewer Maintenance, Environmental Problems

Continuous filament glass fibers force paint laden air to change directions many times as it passes through the pad. Paint particles, unable to follow the continuously weaving air stream, collect on the fibers. Cleaner exhaust air flows on through.

Maintenance problems and the hazards of fire are reduced because fans, motors, and ducts do not accumulate layers of paint. Cleaner air is discharged to the atmosphere protecting the local environment from unintentional "dusting" and costly property damage.

Fast, Easy Installation and Removal

An entire bank of AG-28 pads can be changed in a few minutes. They fit into standard holding frames, no new grids or other accessories needed. AG-28 pads are directly interchangeable with other types of paint arrestors. Only one AG-28 pad is required per frame, including installations where two paper pads are currently used.



Lightly Loaded Air Entering Side
Close-up photo shows open weave pattern that allows over-spray to penetrate deep into the pad.

Heavily Loaded Air Entering Side
Same magnification of heavily loaded pad illustrates the large holding capacity of each fiber. The open space between fibers continues to permit good airflow and allow paint to penetrate.

Heavily Loaded Cross Section
Cross section view shows how AG-28 pad is completely utilized by collecting paint throughout the full depth.

AmericanAirFilter

AG-28

Space-Saving Dispenser Carton

The AAF exclusive packaging design has 60 two-inch pads in a carton only 10½" high.

These cartons are easily carried to and from the booth.

A perforated, easy-open dispenser top permits fast removal of pads. They spring back to their original 2" thickness when removed, while the remaining supply is held conveniently in place until needed.

Product Information

Standard Sizes	Quantity Per Carton	Shipping Wt. (Lbs. Per Carton)
PADS		
16½" X 20½" X 2"	60	9.0
16½" X 25½" X 2"	60	10.0
20½" X 20½" X 2"	60	9.0
20½" X 25½" X 2"	60	11.5
24" X 24" X 2"	60	13.0
ROLLS		
20" X 85' X 2"	2	14.0
25" X 85' X 2"	2	18.0
30" X 85' X 2"	2	21.0
36" X 85' X 2"	2	29.0
40" X 85' X 2"	2	30.0
48" X 85' X 2"	2	32.0
60" X 85' X 2"	1	22.0

Underwriters Laboratories, Inc. Classification
AG-28 media is classified UL Class 2. Testing was performed according to UL Standard 900.

Initial Resistance
.09" w.g. @ 300 FPM
.14" w.g. @ 400 FPM
.20" w.g. @ 500 FPM

Color
White on air entering side. Green tint on air leaving side.

Specifications
Paint Arrestor Media shall be of the disposable type and supplied in either precut pads or rolls 85' in length. Media shall be dry and composed of continuous filament glass fibers bonded together with a cured resin. The media shall be white on the air entering side and tinted on the air leaving side with a contrasting color.The media shall be classified Class 2 by Underwriters Laboratories, Inc.

Pre-cut pads shall be contained in a dispenser carton of the approximate length and width of the pads and no more than 12" in height. Each carton shall contain 60 pads. Access to the pads shall be through an easy-open perforated top which shall allow pads to be removed individually while holding the remaining pads in place.

Rolls of standard width shall be packaged (one, two) per carton. Other widths will be packaged at the discretion of the manufacturer.

The shipping container shall be identified with no less than the product name, size, quantity, and the approved listing mark from Underwriters Laboratories, Inc. Filter media shall be as manufactured by AAF International and identified as AG-28 Paint Arrestor Pads or Rolls.

AAF® INTERNATIONAL *Better Air is Our Business®*

10300 Ormsby Park Place Suite 600
Louisville, Kentucky 40223-6169
www.aafintl.com

Customer Service 888.AAF.2003
Fax 888.223.6500

ISO-9001 Certified Firm

AAF has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.

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AFP-1-106H JUL '06 QG 3M

PAINT OVERSPRAY COLLECTION EFFICIENCY

AG-28 Fiberglass Coatings Collection Media

Test Procedure

A measured amount of paint (by weight) was fed into the filter media in a test duct. After the paint was fed, the gain in weight of the test filter was determined. Additional increments of the same amount of paint were fed until the filter reached a predetermined final resistance to air flow. The paint collection efficiency was calculated for each increment of paint fed and for the overall test. Efficiency is determined by comparing the weight of paint caught to the total weight of paint fed.

	Paint fed (Grams)	Gain in Weight of Test Filter (Grams)	Paint Collection Efficiency
1st Increment	238.82g	234.62g	98.24%
2nd Increment	238.82g	236.12g	98.87%
3rd Increment	238.82g	234.09g	98.02%
4th Increment	238.82g	234.45g	98.17%
5th Increment	238.82g	232.52g	97.36%
Total	1194.10g	1171.80g	98.13%

American Air Filt
215 Central Avenue

CONVENTIONAL, VORTEX OR HVLP MANUAL ELECTROSTATIC GUN

MIV6600

The Sames MIV6600 is the lightest manual gun in the industry that uses modern electronics. It combines superb operator comfort with outstanding finish quality. The MIV6600 is most often used in high production settings where high flowrates are required.

CONVERTIBLE
CONVENTIONAL
HVLP

SPECIFICATIONS

Gun Length:	12" / 305 mm
Gun Weight:	22 ounces / 625 grams
Max. Output Voltage:	60 kV
Max. Air Pressure:	90 psi / 6 bar
Max. Air Consumption:	Fan = 25
Vortex:	14 cfm / 23 m^3/hr
Conventional Fan:	15 cfm / 25 m^3/hr
HVLP Fan:	22 cfm / 37 m^3/hr
Max. Fluid Pressure:	90 psi / 6 bar
Max. Temperature:	140° F / 60° C
Air Inlet Fitting:	1/4" M NPS (Warning: Use Special Hose/Cable combination only
Fluid Inlet Fitting:	3/8" M NPS (Use grounded Fluid Hose Only)
Trigger Assembly:	2 finger standard, 4 finger optional
Wetted Parts:	Plastic and Stainless steel
Material Sprayed:	Virtually all fluid materials

FEATURE	BENEFIT
• Gun cable and hose detatch at gun handle*	• Allows for quick gun changes and easy maintenance
• Lightest Cascade gun in the industry	• Reduces operator fatigue and potential injuries from extended use
• Vortex, HVLP and fan spray	• Will adapt to changing environments
• Highest loaded voltage in the industry	• Delivers the highest transfer efficiencies for conventional guns

* On MIV6600.1 for solvent based coatings with low resistivity only.

KREMLIN Sames

CONVENTIONAL, VORTEX OR HVLP MANUAL ELECTROSTATIC GUN

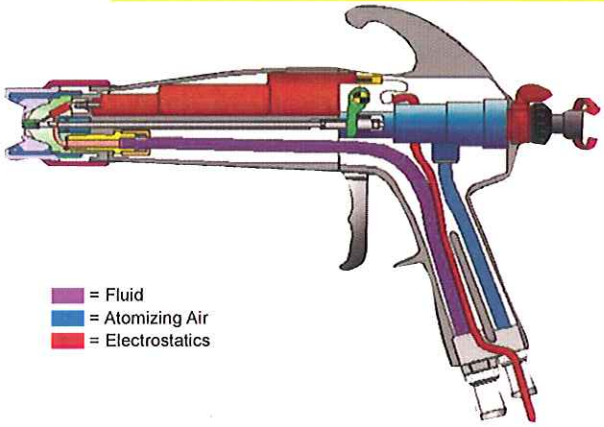
MIV6600 FEATURES

Certifications and Approvals

The MIV6600 gun is FM Approved in the USA and CE and EX Certified for Europe.

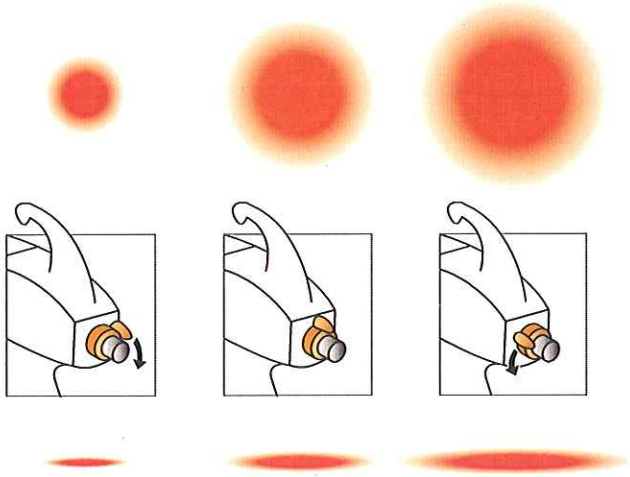
FM APPROVED

System Configuration



Time Saving Adjustments

While spraying, the operator can simultaneously adjust the pattern size and paint flowrate to maintain on-the-go optimum spray performance.

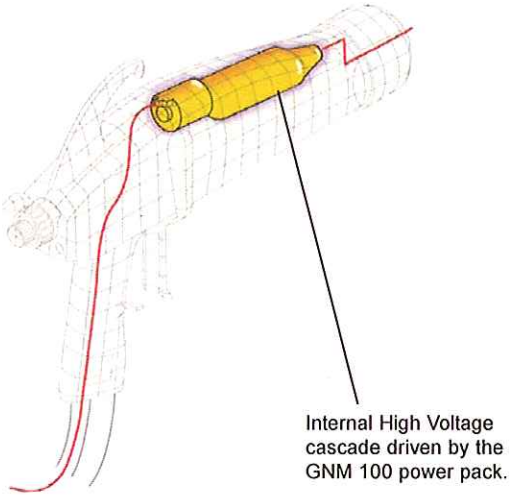


Outstanding Ergonomics

Its lightweight, easy 2 or 4 finger trigger pull, excellent balance and combined cable and air hose assembly makes the MIV6600 the gun of choice by operators that need full voltage performance.

Leading Edge Electronics for Safety and Performance

The MIV6600 uses the latest in electronic technology. The combination of a low voltage, non-sparking cable and integrated cascade, delivers excellent safety for the user while delivering the highest loaded voltage in the industry.



KREMLIN Sames

5. EMISSION INVENTORY WORKBOOK FORMS EI1-EI4 DOCUMENTATION

5.1 Natural Gas-Fired Equipment Emissions

Emission factors for estimating the emissions from the natural gas fired equipment are based on AP-42, Section 1.4 Natural Gas Combustion, July 1998 edition. The estimated uncontrolled criteria pollutant emissions are calculated in Table 5-1a (attached). The combined carbon monoxide (CO), lead, and sulfur dioxide (SO_2) emissions do not exceed the IDEQ modeling thresholds and are not, therefore, included in air dispersion modeling. There are no other known process sources of CO, lead and SO_2 emissions. The estimated uncontrolled TAP emissions are calculated in Table 5-1b.

5.2 Coating Operation Emissions

Criteria, HAP and TAP emissions from the painting operations are estimated using material compositions as provided on Material Safety Data Sheets (MSDS) and by PPG. In some cases two coatings are combined into a single group item (i.e.: DAR8000 and DAR9000 are grouped under DAR- Acrylic Enamels). This was done where there is more than one color in the same paint line, or where two additives in the same line are very similar. In calculating component concentrations for those items, the highest component concentration listed on any MSDS of the group is used to calculate component concentration for the group. All MSDS are attached in the Appendix.

The recipe for each paint mix is provided by PPG (see attached mix specification sheets). To achieve the optimum coating performance, hardeners, reducers and catalysts are added to the primer and/or topcoat in ratios shown below in Table 5-2. Therefore, once the usage rate basis for primer and topcoat is established, the quantities of each mix component can be calculated using the mix recipe.

Table 5-2: Coating Mix Ratios

Mix Ratios (volumetric)	**Delstar Mix**	**Essential Mix**	**Combo Mix**
Primer			
Primer: Catalyst	2:1	None	2:1
Topcoat			
Topcoat: Activator	None	6:1	6:1
Topcoat: Hardener	8:1	6:1	6:1
Topcoat: Reducer	DTR-# 4:3 DT870 2:1	None	None

5.3 Booth Uncontrolled Emissions Estimation

Uncontrolled emission estimations for each of the three paint mixes are provided in Tables 5-3a, 5-4a, and 5-5a (attached). The uncontrolled hourly paint use rate is based on continuous operation of two spray guns with a capacity of 12 ounces per minute, or 5.625 gallons per hour, each. Since the two guns could potentially spray primer or topcoat at the same time, hourly uncontrolled emissions of the primer and topcoat mixes are based on 11.25 gal/hr. Annual emissions are based on two guns spraying 8760 hours per year. However, the resulting annual coating volume is divided between topcoat and primer in a 2.5:1 ratio. This ratio is based on two to three coats of topcoat applied per coat of primer, and was verified by examination of Snake River's past relative use of the two coatings at the Chicago Street facility.[7]

Volatile components in the paints are assumed to be completely emitted. The total content of Volatile Organic Compounds (VOCs) in each coating is estimated by multiplying the non-solids content of the coatings as provided on the MSDS by the coating use rate. This amount is then reduced by the amount of VOC-exempt compounds,[8] acetone and parachlorobenzotrifluoride (PCBTF), contained in the coating, using the minimum concentration of those compounds as listed on the MSDS. The resulting cumulative content of VOCs in the coatings is then listed as the VOC emission rates.

Emissions of one component, hexamethylene diisocynate (HMDI), are estimated more precisely. HMDI is a 585 TAP with a relatively low acceptable ambient concentration. It is a reactive, hardening agent used in very small concentrations in the Delstar and Essential topcoat mixes. The actual concentration in the hardener is less than the 1 wt.% minimum reportable level allowed on MSDS. Attached are letters from PPG reporting the actual concentration of HMDI in the hardeners (0.17-0.18 wt%) and the extent of reaction of the HMDI when mixed with the topcoats (85-95%). In estimating the emissions of HMDI, the actual concentrations as provided by PPG were used, and 15% of the HMI was assumed to be unconsumed in the hardening reaction and, therefore, released to the atmosphere.

For non-volatile paint components, the efficiency of the paint application method is considered in estimating uncontrolled emissions. Snake River Trailer is planning on utilizing electrostatic spray guns in the paint booths. The supplier reports 50-65% paint retention rate on the spray targets (see Form EU3 Documentation). Uncontrolled emission rates for each non-volatile pollutant of concern are estimated by multiplying the coatings' cumulative pollutant content by the maximum target overspray rate of 50% for electrostatic application operations.

Particulate content in the coatings is estimated by multiplying the solids content of the coatings

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[7] C&B Quality Trailer Works, *Monthly Coating Use Reports*, April-July 2006.
[8] United States Code of Federal Regulations, Title 40 Part 51.100(s).

as provided on the MSDS by the coating usage rate. All particulate is conservatively assumed to be of a diameter less than 10 microns (PM_{10}). Uncontrolled emission rates of the cumulative PM_{10} content are calculated as described above for non-volatile components.

5.4 Booth Uncontrolled Emissions Analysis

Analysis of uncontrolled emissions of the different paint mixes demonstrate that, without permit limits, the facility will qualify as a "major facility" because of VOC, PM_{10}, and/or HAP emissions. Permit conditions are proposed to maintain "synthetic minor" facility status.

On the other hand, most uncontrolled TAP emissions are less than the emissions screening levels listed in IDAPA 58.01.01, Sections 585. Per IDAPA 58.01.01.05, for these TAPs no further procedures for demonstrating preconstruction compliance are required.

For the remaining TAPs, the uncontrolled air concentrations were calculated using the results of screening modeling described elsewhere in this application (see Form MI Documentation). For all but a few TAPs, the resulting uncontrolled ambient concentrations were less than the acceptable ambient concentrations (AACs) provided in IDAPA 58.01.01.585. Per IDAPA 58.01.01.06, for these TAPs no further procedures for demonstrating preconstruction compliance are required.

For the remaining TAPs (calcium carbonate, PCBTF, and silica-crystalline), controlled emissions were analyzed to demonstrate pre-construction compliance.

5.5 Booth Controlled Emissions Estimation

Controlled emissions for each of the three paint mixes are provided in Tables 5-3b, 5-4b, and 5-5b. The annual controlled usage for each paint mix is based on maintaining synthetic minor facility status or matching Snake River's maximum projected coating usage rate. The daily controlled usage for each paint mix is based on meeting 24-hour averaged AACs for all TAPs or matching the spray guns' maximum capacity.

In estimating controlled emissions the efficiency of the booths outlet filters is considered. Snake River Trailer is planning on using American Air Filter AG-28 filters with an efficiency of 98.13% (see Form EU3 Documentation). Controlled emissions for each pollutant of concern are estimated by multiplying the pre-filter component emission rate by a filter pass-through rate of 2%.

5.6 Booth Controlled Emissions Analysis

Analysis of controlled emissions of the different paint mixes establishes the proposed permit limits. For the Delstar Mix (Table 5-3b), the limiting pollutant is xylene. The majority of xylene is found in the Delstar enamel topcoat. Annual topcoat use rate must be controlled to keep xylene emissions below 10 tons/yr. Controlled, 24-hr averaged, TAP emissions rates for the Delstar Mix are

calculated using the two spray guns' maximum daily capacity (270 gal/day) for both the primer and topcoat mixes, and accounting for the booth filter efficiency. Using this unrestricted daily use rate, all TAP and PM_{10} ambient concentrations or emission rates were within acceptable levels.

The controlled emissions analysis for the Essential Mix is provided in Table 5-4b. Snake River would like to set annual usage limit for this paint line at 300% of the Chicago Street facility, or 10,000 gallons per year of topcoat. Because of the reduced VOCs in the Essential line, there are no limiting annual pollutants at the proposed permit limit. However, daily limits on the topcoat are required to keep the ambient concentration of parachlorobenzotrifluoride (PCBTF) at acceptable levels. PCBTF is not a listed 58.01.01 TAP. However, upon inquiry, IDEQ determined that it should be considered a non-carcinogenic TAP and established an AAC of 253 ug/m^3.[9]

The controlled emissions analysis for the Combo Mix is provided in Table 5-5b. As with the Essential Mix, Snake River would like to set the annual usage limit for this paint line at 300% of the Chicago Street facility, or 10,000 gallons per year of topcoat. Because of the reduced VOCs in the Essential topcoat, there are no limiting annual pollutants at the proposed permit limit. However, daily limits on the topcoat are required to keep the ambient concentration of PCBTF at acceptable levels.

5.7 Controlled Emissions Analysis- Facility Summary

An overall analysis of the booth emissions is provided in Table 5-6. In this table, daily TAP emissions are calculated by simply summarizing the proposed, daily permitted emissions for each paint mix along with the unrestricted TAP emissions from all three air heaters. This is very conservative (maximizes emissions) since summing the daily permitted emissions for the three paint mixes actually exceeds the daily capacity of the spray guns. Daily PM_{10} emissions are calculated using the spray guns' capacity and the coating mix with the highest solids content. The coating with the highest solids content is the Essential Primer. The PM_{10} emissions from unrestricted air heater operations are also included in the daily PM_{10} emission rate.

In Table 5-6, annual emissions for all coatings are calculated and summarized at their proposed annual permit limits. This conservative approach results in xylene emissions greater than 10 tons/yr, and total HAP emissions greater than 25 tons/yr. However, in practice these major facility thresholds will not be exceeded because all of the coating mixes will not be used. To ensure the xylene and, therefore, HAP limits are not exceeded, Snake River proposes a permit limit of 9.9 tons/yr xylene. Including a xylene limit in the permit will allow more DP- primer and catalyst to be used in the event Snake River utilizes the Essential or Combo Mixes, but will prevent too much DP-primer from being used if Snake River uses the Delstar Mix.

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[9] Project Communication (via telephone), Robert and Carl Brown, IDEQ, and Sarah Stine, TORF Environmental Management, November 6, 2006.

5.8 Controlled Emissions Analysis- Dry Room

The Dry Room is used to cure (harden) the coating of a newly primed and topcoated piece. Typically, after a trailer is topcoated in Booth 2, it is pulled into the Dry Room to allow curing of the coating to be completed. During the automated cure cycle, the Dry Room heater increases the inlet air temperature to 120-140°F for approximately 15 minutes to accelerate curing of the coating. The Dry Room is used intermittently during the operating day.

Per the booth supplier, a maximum of 5-10% of the coating volatiles can remain in the coating prior to curing in the Dry Room.[10] If the volatile level was higher than this, bubbling of the coating would occur during the cure cycle. Estimated maximum emissions from the Dry Room are calculated in Table 5-7 assuming 10% of the total coating volatiles are emitted from the Dry Room. Since no spray operations occur in the Dry Room, no particulate is assumed to be emitted.

[10] Project Communication (via telephone), Ty Crowther, Finishing Consultants, and Sarah Stine, TORF Environmental Management, February 28, 2007.

TABLE 5-1a: Natural Gas-Fired Air Heaters Criteria Emissions

Natural Gas-Fired Equipment	Make / Model	Rated Output (MMBtu/hr)	On-Line Rating (hrs/yr) Actual	On-Line Rating (hrs/yr) Used for PTE	Fuel Rate[1] (scfh)	Emission Factors			Potential Emissions from Gas Combustion		Modeling Threshold		Source ID
							AP-42	lb/10^6 scf	lb/hr	tons/yr	lb/hr	tons/yr	
Spray Booth 1 Air Supply Heater		2.295	3120	8760	2813	NO_x	Table 1.4-1.	94	0.26	1.16	--	1.0	BOOTH
						CO	Table 1.4-1.	40	0.11	0.49	14	--	
						SO_2	Table 1.4-2.	0.6	0.0017	0.0074	0.2	1.0	
						PM_{10}	Table 1.4-2.	7.6	0.0214	0.0936	0.2	1.0	BOOTH
						Lead	Table 1.4-2.	0.0005	1.41E-06	6.16E-06	--	0.6	
						VOC	Table 1.4-2.	5.5	0.0155	0.0678	--	--	
Spray Booth 2 Air Supply Heater	Bananza	2.295	3120	8760	2813	NO_x	Table 1.4-1.	94	0.26	1.16	--	1.0	BOOTH
						CO	Table 1.4-1.	40	0.11	0.49	14	--	
						SO_2	Table 1.4-2.	0.6	0.0017	0.0074	0.2	1.0	
						PM_{10}	Table 1.4-2.	7.6	0.0214	0.0936	0.2	1.0	BOOTH
						Lead	Table 1.4-2.	0.0005	1.41E-06	6.16E-06	--	0.6	
						VOC	Table 1.4-2.	5.5	0.0155	0.0678	--	--	
Dry Room Recirculation Heater	Reznor	0.180	3120	8760	221	NO_x	Table 1.4-1.	94	0.021	0.091	--	1.0	BOOTH[2]
						CO	Table 1.4-1.	40	0.009	0.039	14	--	
	HZ225E-8					SO_2	Table 1.4-2.	0.6	0.0001	0.0006	0.2	1.0	
						PM_{10}	Table 1.4-2.	7.6	0.0017	0.0073	0.2	1.0	BOOTH[2]
						Lead	Table 1.4-2.	0.0005	1.10E-07	4.83E-07	--	0.6	
						VOC	Table 1.4-2.	5.5	0.0012	0.0053	--	--	

Note 1: Assume 80% efficiency, natural gas heating value of 1020 Btu/scf.

Note 2: Dry Room heater emissions included with booth emissions for screening modeling. Dry Room heater emissions are less than 5% of Booth heater emissions.

Table 5-1b: Natural Gas-Fired Air Heaters TAP Emissions

Unit ID	Rated Input MMBtu per hr	On-line Rating Used (hrs/yr)	Emission Factor AP-42 Tables 1.4-3 and 1.4-4		Uncontrolled Combustion Emissions	Source ID
			Toxic Air Pollutant	lb/ MMBtu	lbs/hr	
Booth and Dry Room Heaters (3)	5.963	8760	Arsenic	2.0E-07	1.2E-06	BOOTH[1]
			Barium	4.3E-06	2.6E-05	
			Benzene	2.1E-06	1.2E-05	
			Cadmium	1.1E-06	6.4E-06	
			Chromium	1.4E-06	8.2E-06	
			Cobalt	8.2E-08	4.9E-07	
			Copper	8.3E-07	5.0E-06	
			Dichlorobenzene	1.2E-06	7.0E-06	
			Formaldehyde	7.4E-05	4.4E-04	
			Hexane	1.8E-03	0.011	
			Manganese	3.7E-07	2.2E-06	
			Mercury	2.5E-07	1.5E-06	
			Molybdenum	1.1E-06	6.4E-06	
			Naphthalene	6.0E-07	3.6E-06	
			Nickel	2.1E-06	1.2E-05	
			Pentane	2.5E-03	1.5E-02	
			Toluene	3.3E-06	2.0E-05	
			Vanadium	2.3E-06	1.3E-05	
			Zinc	2.8E-05	1.7E-04	

Note 1: Dry Room heater emissions included with booth emissions for screening modeling. Dry Room heater emissions are less than 5% of Booth heater emissions.

Table 5-3a:
Uncontrolled Emissions with Delstar Paint Mix

Product ID Name Manufacturer	Usage Rate Basis[1]		Kit Avenue Unrestricted Usage		Product Specific Gravity (MSDS)	Kit Avenue Unrestricted Usage		Solids Content (MSDS wt%)	Volatile Content (wt%)	VOC PTE[2] (tons/yr)	Component	CAS Number	Component Concentration (MSDS, wt%)		Coating Retention (%)[3]	Component Potential to Emit	
	Daily	Annual	gal/day	gal/yr		lb/day	lb/yr						min[2]	max		lb/day	lb/yr
DAR-Acrylic Enamels PPG	11.25 gph of enamel, DTR reducer and hardener		144	37543	0.948	1139	296826	44.79%	55.21%	81.94	Carbon Black	1333-86-4		5%	50.0%	28.463	7421
											Ethyl Benzene	100-41-4		7%	0.0%	79.696	20778
											Methyl Ethyl Ketone	78-93-3		7%	0.0%	79.696	20778
											Titanium Dioxide	13463-67-7		30%	50.0%	170.777	44524
											Xylenes	1330-20-7		70%	0.0%	796.957	207778
DP50LF Gray DP90LF Black Epoxy Primers PPG	11.25 gph of primer and catalyst	Continuous two gun operation (98550 gal/yr) 2.5:1 Enamel Mix to Primer Mix	180	18771	1.338	2009	209469	62.27%	37.73%	39.52	Barium Sulfate	7727-43-7		30%	50.0%	301.291	31420
											2-Butoxy Ethanol	111-76-2		5%	0.0%	100.430	10473
											Calcium Carbonate	1317-65-3		30%	50.0%	301.291	31420
											Carbon Black	1333-86-4		5%	50.0%	50.215	5237
											Epoxy Resin	25068-38-6		30%	50.0%	301.291	31420
											Ethyl Benzene	100-41-4		1%	0.0%	20.086	2095
											Methyl n-Amyl Ketone	110-43-0		13%	0.0%	261.119	27231
											Methyl Isobutyl Ketone	108-10-1		7%	0.0%	140.602	14663
											Naphtha (Aromatic)	64742-95-6		5%	0.0%	100.430	10473
											Silica- amorphous	112926-00-8		1.5%	50.0%	15.065	1571
											Silica- crystalline	14808-60-7		1.0%	50.0%	10.043	1047
											Talc	14807-96-6		5%	50.0%	50.215	5237
											Titanium Dioxide	13463-67-7		10%	50.0%	100.430	10473
											Toluene	108-88-3		7%	0.0%	140.602	14663
											1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	100.430	10473
											Vinyl Resin	25086-48-0		5%	50.0%	50.215	5237
											Xylenes	1330-20-7		5%	0.0%	100.430	10473
DP401LF Epoxy Primer Catalyst PPG	2:1 Primer to Catalyst		90	9386	0.880	661	68884	29.77%	70.23%	24.19	2-Butoxy Ethanol	111-76-2		10%	0.0%	66.053	6888
											Isopropyl Alcohol	67-63-0		7%	0.0%	46.237	4822
											Naphtha (Aromatic)	64742-95-6		13%	0.0%	85.869	8955
											Polyamide Resin	80100337-5132		30%	50.0%	99.079	10333
											Propyl Alcohol	71-23-8		30%	0.0%	198.158	20665
											1,2,4-Trimethyl Benzene	95-63-6		7%	0.0%	46.237	4822
											Xylenes	1330-20-7		30%	0.0%	198.158	20665
DT870 Reducer PPG	2:1 Enamel to Reducer (Note 1)		72	18771	0.829	498	129783	0.00%	100.00%	64.89	n-Heptane	142-82-5		5%	0.0%	24.890	6489
											1-Methoxy 2-Propyl Acetate	108-65-6		30%	0.0%	149.339	38935
											2-Methoxy 2-Propyl Acetate	70657-70-4		1%	0.0%	4.978	1298
											Methylcyclohexane	108-87-2		5%	0.0%	24.890	6489
											Methyl Ethyl Ketone	78-93-3		40%	0.0%	199.12	51913
											Naphtha	64742-89-8		5%	0.0%	24.89	6489
											Naphtha (V.M. & P.)	8032-32-4		30%	0.0%	149.34	38935
											Toluene	108-88-3		30%	0.0%	149.34	38935
DTL10 Laquer Thinner PPG	15 gallons per day (Note 5)		15	5475	0.80	100	36529	0.00%	100.0%	16.44	Acetone	67-64-1	10%	30%	0.0%	30.02	10959
											i-Hexane	107-83-5		5%	0.0%	5.00	1826
											n-Hexane	110-54-3		7%	0.0%	7.01	2557
											Isopropyl Alcohol	67-63-0		30%	0.0%	30.02	10959
											1-Methoxy 2-Propyl Acetate	108-65-6		5%	0.0%	5.00	1826
											3-Methylpentane	96-14-0		5%	0.0%	5.00	1826
											Naphtha	64742-89-8		5%	0.0%	5.00	1826
											Toluene	108-88-3		70%	0.0%	70.06	25570
DTR600 DTR602 Reducers PPG	4:3 Enamel to Reducer		108	28157	0.812	731	190682	0.00%	100.00%	85.81	Acetone	67-64-1	10%	40%	0.0%	292.55	76273
											Aromatic Hydrocarbon	64742-94-5		13%	0.0%	95.08	24789
											n-Butyl Acetate	123-86-4		10%	0.0%	73.14	19068
											n-Heptane	142-82-5		13%	0.0%	95.08	24789
											i-Hexane	107-83-5		7%	0.0%	51.20	13348
											n-Hexane	110-54-3		10%	0.0%	73.14	19068
											Methylcyclohexane	108-87-2		13%	0.0%	95.08	24789
											3-Methylpentane	96-14-0		7%	0.0%	51.20	13348
											Naphtha	64742-89-8		30%	0.0%	219.42	57205
											Naphtha (Aromatic)	64742-95-6		7%	0.0%	51.20	13348
											Naphthalene	91-20-3		1.5%	0.0%	10.97	2860
											1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	36.57	9534
											Toluene	108-88-3		30%	0.0%	219.42	57205
											Xylenes	1330-20-7		1.0%	0.0%	7.31	1907
DXR80 Ultra Urethane Hardener PPG	8:1 Enamel to Hardener		18	4693	1.110	167	43444	83.39%	16.61%	3.61	n-Butyl Acetate	123-86-4		5%	0.0%	8.33	2172
											Hexamethylene Diisocyanate (Note 4)	822-06-0		0.17%	85.0%	0.042	11
											Hexane-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	83.32	21722
											1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	16.66	4344
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	1.67	434
											Naphtha (Aromatic)	64742-95-6		5%	0.0%	8.33	2172
											1,2,4-Trimethyl Benzene	95-63-6		1.5%	0.0%	2.50	652
											Xylene	1330-20-7		1.0%	0.0%	1.67	434

Toxic Air Pollutants - Paint Application	TAP Type (24 hr or Annual Averaging)	TAP Screening Level (lb/hr)	Total Uncontrolled Emissions (lb/hr)[8]	Uncontrolld Emissions (% of EL)	Allowable Ambient Conc. (AAC, mg/m³)	Impact at 1 lb/hr Emissions (mg/m³)[8]	Persistence Factor	Uncontrolld Ambient Conc. (mg/m³)	Uncontrolld Conc. (% of AAC)
Acetone	585 (24 hr)	119	13.4	11.3%	89	0.0946	0.4		
2-Butoxy Ethanol	585 (24 hr)	8	6.94	86.7%	6				
n-Butyl Acetate	585 (24 hr)	47.3	3.39	7.2%	35.5				
Calcium Carbonate	585 (24 hr)	0.667	12.6	1882%	0.5			0.475	95.0%
Carbon Black	585 (24 hr)	0.23	3.28	1425%	0.175			0.124	70.8%
Ethyl Benzene	585 (24 hr)	29	4.16	14.3%	21.75				
n-Heptane	585 (24 hr)	109	5.00	4.6%	82				
Hexamethylene diisocyanate	585 (24 hr)	0.002	0.00174	86.9%	0.0015				
n-Hexane	585 (24 hr)	12	3.34	27.8%	9				
Isopropyl Alcohol	585 (24 hr)	65.3	3.18	4.9%	49				
1-Methoxy 2-Propyl Acetate	585 (24 hr)	24	7.13	29.7%	3.6				
Methyl n-Amyl Ketone	585 (24 hr)	15.7	10.9	69.3%	11.75				
Methylcyclohexane	585 (24 hr)	107	5.00	4.7%	80.5				
MEK	585 (24 hr)	39.3	11.6	29.6%	29.5				
MIBK	585 (24 hr)	13.7	5.86	42.8%	10.25				
Naphthalene	585 (24 hr)	3.33	0.46	13.7%	2.5				
Propyl Alcohol	585 (24 hr)	33.3	8.26	24.8%	25				
Silica- amorphous	585 (24 hr)	0.667	0.63	94.1%	0.5				
Silica- crystalline	585 (24 hr)	0.0067	0.42	6246%	0.005			0.016	317%
Toluene	585 (24 hr)	25	24.1	96.6%	18.75				
1,2,4-Trimethyl Benzene	585 (24 hr)	8.2	7.74	94.4%	6.15				
Xylene	585 (24 hr)	29	46.0	159%	21.75			1.741	8.0%

Hazardous Air Pollutants	Potential to Emit (tons/yr)
Ethyl Benzene	11.4
Hexamethylene diisocyanate	0.0054
n-Hexane	10.8
MEK	36.3
MIBK	7.3
Naphthalene	1.4
Toluene	68.2
Xylene	120.6
Total	**256.2**

Criteria Pollutants	Potential to Emit (tons/yr)
PM_{10} (Note 7)	80.0
VOC (Note 2)	234.4

Note 1: Capacity of Sames MIV gun is 12 fl.oz./minute 5.625 gallon/hour. Uncontrolled emissions based on continuous, 2 gun operation.
Topcoat Mix: 8 parts enamel, 6 parts DTR reducer, 1 part hardener. DT870 Reducer only used occasionally in winter as a supplement.
Primer Mix: 2 parts primer, 1 part catalyst.

Note 2: All volatile material counted as VOC except for acetone. Total VOCs reduced by acetone minimum concentration (per MSDS).

Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system. For the non-volatile constituents in these calculations, 50% coating retention was assumed.

Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate in the DXR hardener is 0.17%, and 85-95% is chemically reduced and retained in the coating upon mixing with acrylic paint prior to spraying.

Note 5: DTL10 used for equipment cleaning.

Note 6: Based on Screen3 modeling.

Note 7: Based on combined coatings' solids content adjusted for coating retention.

Note 8: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day. For 586 TAPs, sum of component lb/yr divided by 8760 hrs/yr.

Table 5-3b:
Controlled Emissions with Delstar Paint Mix

Product ID Name Manufacturer	2006 Chicago Street Usage (gal/yr)	Usage Rate Basis[1]		Kit Avenue Proposed Usage		Product Specific Gravity (MSDS)	Kit Avenue Proposed Usage		Solids Content (MSDS wt%)	Volatile Content (wt%)	Controlled VOC Emissions[2] (tons/yr)	Component	CAS Number	Component Concentration (MSDS, wt%)		Coating Retention (%)[3]	Spray Booth Filter Efficiency (%)[8]	Estimated Controlled Emissions	
		Daily	Annual	gal/day	gal/yr		lb/day	lb/yr						min[2]	max			lb/day	lb/yr
DAR-Acrylic Enamels PPG	2800	11.25 gph of enamel, DTR reducer and hardener	Limit xylene emissions to 9.9 tons/yr	144	3075	0.948	1139	24312	44.79%	55.21%	6.71	Carbon Black	1333-86-4		5%	50.0%	98.0%	0.57	12.2
												Ethyl Benzene	100-41-4		7%	0.0%	0.0%	79.70	1701.8
												Methyl Ethyl Ketone	78-93-3		7%	0.0%	0.0%	79.70	1701.8
												Titanium Dioxide	13463-67-7		30%	50.0%	98.0%	3.42	72.9
												Xylenes	1330-20-7		70%	0.0%	0.0%	796.96	17018.4
DP50LF Gray DP90LF Black Epoxy Primers PPG	1024	11.25 gph of primer and catalyst	2.5:1 Enamel Mix to Primer Mix	180	1538	1.338	2009	17157	62.27%	37.73%	3.24	Barium Sulfate	7727-43-7		30%	50.0%	98.0%	6.03	51.5
												2-Butoxy Ethanol	111-76-2		5%	0.0%	0.0%	100.43	857.8
												Calcium Carbonate	1317-65-3		30%	50.0%	98.0%	6.03	51.5
												Carbon Black	1333-86-4		5%	50.0%	98.0%	1.00	8.58
												Epoxy Resin	25068-38-6		30%	50.0%	98.0%	6.03	51.5
												Ethyl Benzene	100-41-4		1%	0.0%	0.0%	20.09	171.6
												Methyl n-Amyl Ketone	110-43-0		13%	0.0%	0.0%	261.12	2230.4
												Methyl Isobutyl Ketone	108-10-1		7%	0.0%	0.0%	140.60	1201.0
												Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	100.43	857.8
												Silica- amorphous	112926-00-8		1.5%	50.0%	98.0%	0.30	2.57
												Silica- crystalline	14808-60-7		1.0%	50.0%	98.0%	0.20	1.72
												Talc	14807-96-6		5%	50.0%	98.0%	1.00	8.58
												Titanium Dioxide	13463-67-7		10%	50.0%	98.0%	2.01	17.2
												Toluene	108-88-3		7%	0.0%	0.0%	140.60	1201.0
												1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	0.0%	100.43	857.8
												Vinyl Resin	25086-48-0		5%	50.0%	98.0%	1.00	8.6
												Xylenes	1330-20-7		5%	0.0%	0.0%	100.43	857.8
DP401LF Epoxy Primer Catalyst PPG	515	2:1 Primer to Catalyst		90	769	0.880	661	5642	29.77%	70.23%	1.98	2-Butoxy Ethanol	111-76-2		10%	0.0%	0.0%	66.05	564.2
												Isopropyl Alcohol	67-63-0		7%	0.0%	0.0%	46.24	394.9
												Naphtha (Aromatic)	64742-95-6		13%	0.0%	0.0%	85.87	733.5
												Polyamide Resin	80100337-5132		30%	50.0%	98.0%	1.98	16.9
												Propyl Alcohol	71-23-8		30%	0.0%	0.0%	198.16	1692.6
												1,2,4-Trimethyl Benzene	95-63-6		7%	0.0%	0.0%	46.24	394.9
												Xylenes	1330-20-7		30%	0.0%	0.0%	198.16	1692.6
DT870 Reducer PPG	306	2:1 Enamel to Reducer	500 gal per year (Note 1)	72	500	0.829	498	3457	0.00%	100.00%	1.73	n-Heptane	142-82-5		5%	0.0%	0.0%	24.89	172.8
												1-Methoxy 2-Propyl Acetate	108-65-6		30%	0.0%	0.0%	149.34	1037.1
												2-Methoxy 2-Propyl Acetate	70657-70-4		1%	0.0%	0.0%	4.98	34.6
												Methylcyclohexane	108-87-2		5%	0.0%	0.0%	24.89	172.8
												Methyl Ethyl Ketone	78-93-3		40%	0.0%	0.0%	199.12	1382.8
												Naphtha	64742-89-8		5%	0.0%	0.0%	24.89	172.8
												Naphtha (V.M. & P.)	8032-32-4		30%	0.0%	0.0%	149.34	1037.1
												Toluene	108-88-3		30%	0.0%	0.0%	149.34	1037.1
DTL10 Laquer Thinner PPG	1040	15 gal per day (Note 5)	30 gal per week (Note 5)	15	1560	0.80	100	10408	0.00%	100.0%	4.68	Acetone	67-64-1	10%	30%	0.0%	0.0%	30.02	3122.5
												i-Hexane	107-83-5		5%	0.0%	0.0%	5.00	520.4
												n-Hexane	110-54-3		7%	0.0%	0.0%	7.01	728.6
												Isopropyl Alcohol	67-63-0		30%	0.0%	0.0%	30.02	3122.5
												1-Methoxy 2-Propyl Acetate	108-65-6		5%	0.0%	0.0%	5.00	520.4
												3-Methylpentane	96-14-0		5%	0.0%	0.0%	5.00	520.4
												Naphtha	64742-89-8		5%	0.0%	0.0%	5.00	520.4
												Toluene	108-88-3		70%	0.0%	0.0%	70.06	7285.8
DTR600 DTR602 Reducers PPG	1600	4:3 Enamel to Reducer		108	2306	0.812	731	15618	0.00%	100.00%	7.03	Acetone	67-64-1	10%	40%	0.0%	0.0%	292.55	6247.24
												Aromatic Hydrocarbon	64742-94-5		13%	0.0%	0.0%	95.08	2030.35
												n-Butyl Acetate	123-86-4		10%	0.0%	0.0%	73.14	1561.81
												n-Heptane	142-82-5		13%	0.0%	0.0%	95.08	2030.35
												i-Hexane	107-83-5		7%	0.0%	0.0%	51.20	1093.27
												n-Hexane	110-54-3		10%	0.0%	0.0%	73.14	1561.81
												Methylcyclohexane	108-87-2		13%	0.0%	0.0%	95.08	2030.35
												3-Methylpentane	96-14-0		7%	0.0%	0.0%	51.20	1093.27
												Naphtha	64742-89-8		30%	0.0%	0.0%	219.42	4685.43
												Naphtha (Aromatic)	64742-95-6		7%	0.0%	0.0%	51.20	1093.27
												Naphthalene	91-20-3		1.5%	0.0%	0.0%	10.97	234.27
												1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	0.0%	36.57	780.91
												Toluene	108-88-3		30%	0.0%	0.0%	219.42	4685.43
												Xylenes	1330-20-7		1.0%	0.0%	0.0%	7.31	156.18
DXR80 Ultra Urethane Hardener PPG	335	8:1 Enamel to Hardener		18	384	1.110	167	3558	83.39%	16.61%	0.30	n-Butyl Acetate	123-86-4		5%	0.0%	0.0%	8.33	177.92
												Hexamethylene Diisocyanate (Note 4)	822-06-0		0.17%	85.0%	0.0%	0.042	0.89
												Hexane-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	98.0%	1.67	35.58
												1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	0.0%	16.66	355.83
												2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	1.67	35.58
												Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	8.33	177.92
												1,2,4-Trimethyl Benzene	95-63-6		1.5%	0.0%	0.0%	2.50	53.37
												Xylene	1330-20-7		1.0%	0.0%	0.0%	1.67	35.58

Toxic Air Pollutants - Paint Application	TAP Type (24 hr or Annual Averaging)	Allowable Ambient Conc. (AAC, mg/m3)	Total Controlled Emissions (lb/hr)[9]	Impact at 1 lb/hr Emissions (mg/m3)[6]	Persistence Factor	Controlled Ambient Conc. (mg/m3)	Controlled Conc. (% of AAC)
Acetone	585 (24 hr)	89	13.44	0.0946	0.4		
2-Butoxy Ethanol	585 (24 hr)	6	6.94				
n-Butyl Acetate	585 (24 hr)	35.5	3.39				
Calcium Carbonate	585 (24 hr)	0.5	0.251				
Carbon Black	585 (24 hr)	0.18	0.066				
Ethyl Benzene	585 (24 hr)	21.8	4.16				
n-Heptane	585 (24 hr)	82	5.00				
Hexamethylene diisocyanate	585 (24 hr)	0.0015	0.00174				
n-Hexane	585 (24 hr)	9	3.34				
Isopropyl Alcohol	585 (24 hr)	49	3.18				
1-Methoxy 2-Propyl Acetate	585 (24 hr)	3.6	7.13				
Methyl n-Amyl Ketone	585 (24 hr)	11.8	10.88				
Methylcyclohexane	585 (24 hr)	80.5	5.00				
MEK	585 (24 hr)	29.5	11.62				
MIBK	585 (24 hr)	10.3	5.86				
Naphthalene	585 (24 hr)	2.5	0.46				
Propyl Alcohol	585 (24 hr)	25	8.26				
Silica- amorphous	585 (24 hr)	0.5	0.0126				
Silica- crystalline	585 (24 hr)	0.005	0.00837			0.00032	6.3%
Toluene	585 (24 hr)	18.8	24.14				
1,2,4-Trimethyl Benzene	585 (24 hr)	6.15	7.74				
Xylene	585 (24 hr)	21.8	46.0				

Criteria Pollutants	Averaging Period	NAAQS Standard (ug/m3)	Controlled Emissions (lb/hr)	Impact at 1 lb/hr Emissions (ug/m3)[6]	Persistence Factor	Controlled Ambient Conc. (ug/m3)	Controlled Conc. (% of NAAQS)
PM_{10}	24-hr[10]	150	0.60	94.6	0.4	22.81	15.2%
	Annual	50	0.03		0.08	0.23	0.5%

Hazardous Air Pollutants	Controlled Emissions (tons/yr)	Major Facility Threshold (tons//yr)
Ethyl Benzene	0.94	10
Hexamethylene diisocyanate	0.00045	10
n-Hexane	1.15	10
MEK	1.5	10
MIBK	0.60	10
Naphthalene	0.12	10
Toluene	7.1	10
Xylene	9.9	10
Total	**21.3**	**25**

Criteria Pollutants	Controlled Emissions (tons/yr)	Major Facility Threshhold (tons/yr)
PM_{10} (Note 7)	0.13	100
VOC (Note 2)	19.0	100

Note 1: Capacity of Sames MIV gun is 12 fl. ounces per minute = 5.625 gallon/hour.
Topcoat Mix: 8 parts enamel, 6 parts DTR reducer, 1 part hardener. DT870 reducer only used occasionally in winter.
Primer Mix: 2 parts primer, 1 part catalyst.
Note 2: All volatile material counted as VOC except for acetone. Total VOCs reduced by acetone minimum MSDS concentration.
Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system.
For the non-volatile constituents in these calculations, 50% coating retention was assumed.
Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate in the DXR hardener is 0.17%,
and 85-95% is chemically reduced upon mixing with paint prior to spraying.

Note 5: DTL10 used for equipment cleaning.

Note 6: Based on Screen3 modeling.

Note 7: Based on combined coatings' solids content adjusted for coating retention and control equipment efficiency.
Note 8: American Filter AG-26 rated removal efficiency = 98.13%. 98% used for calculating controlled emissions
of non-volatile components.
Note 9: For 585 TAPs, sum of component lb/day divided by 24 hrs/day. For 586 TAPs, sum of lb/yr divided by 8760 hrs/yr.
Note 10: Based on 2 gun, 24-hr max capacity and coating w/ highest solids content. The highest solids coating is: Primer

Table 5-4a:
Uncontrolled Emissions with Essential Paint Mix

Product ID Name Manufacturer	Usage Rate Basis[1]		Kit Avenue Unrestricted Usage		Product Specific Gravity (MSDS)	Kit Avenue Unrestricted Usage		Solids Content (MSDS wt%)	Volatile Content (wt%)	VOC PTE[2] (tons/yr)	Component	CAS Number	Component Concentration (MSDS, wt%)		Coating Retention (%)[3]	Component Potential to Emit	
	Daily	Annual	gal/day	gal/yr		lb/day	lb/yr						min[7]	max		lb/day	lb/yr
ASP-435 Gray ASP-901 Black 3.5/2.8 VOC Shop Primers PPG	11.25 gph primer	Continuous two gun operation (98550 gal/yr) 2.5:1 Topcoat Mix to Primer	270	28157	1.393	3137	327119	70.12%	29.88%	48.87	Calcium Carbonate	1317-65-3		40%	50.0%	627.35	65424
											Carbon Black	1333-86-4		5%	50.0%	78.42	8178
											Methyl Ethyl Ketoxime	96-29-7		1.0%	0.0%	31.37	3271
											Naphtha (Stoddard Solvent)	8052-41-3		30%	0.0%	941.03	98136
											Naphtha (V.M. & P.)	8032-32-4		30%	0.0%	941.03	98136
											Petroleum Distillates	64741-84-0		10%	0.0%	313.68	32712
											Silica- crystalline	14808-60-7		1.0%	50.0%	15.68	1636
											Talc	14807-96-6		30%	50.0%	470.51	49068
											Titanium Dioxide	13463-67-7		5%	50.0%	78.42	8178
											Xylenes	1330-20-7		1.0%	0.0%	31.37	3271
DTL10 Laquer Thinner PPG	15 gallons per day (Note 5)		15	5475	0.80	100	36529	0.00%	100.00%	16.44	Acetone	67-64-1	10%	30%	0.0%	30.02	10959
											i-Hexane	107-83-5		5%	0.0%	5.00	1826
											n-Hexane	110-54-3		7%	0.0%	7.01	2557
											Isopropyl Alcohol	67-63-0		30%	0.0%	30.02	10959
											1-Methoxy 2-Propyl Acetate	108-65-6		5%	0.0%	5.00	1826
											3-Methylpentane	96-14-0		5%	0.0%	5.00	1826
											Naphtha	64742-89-8		5%	0.0%	5.00	1826
											Toluene	108-88-3		70%	0.0%	70.06	25570
ESH200 Single Stage Hardener PPG	6:1 Topcoat to Hardener		33.75	8799	1.142	321	83805	89.03%	10.97%	4.60	Hexamethylene Diisocyanate (Note 4)	822-06-0		0.18%	85.0%	0.09	23
											Hexane- 1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	160.72	41903
ESSS9000 Black Acrylic Polyester PPG	11.25 gph of topcoat, activator and hardener	Continuous two gun operation (98550 gal/yr)	202.5	47515	0.971	1640	384785	54.91%	45.09%	67.51	Acetone	67-64-1	10%	30%	0.0%	491.96	115435
											n-Butyl Acetate	123-86-4		13%	0.0%	213.18	50022
											Carbon Black	1333-86-4		1.5%	50.0%	12.30	2886
											1-Methoxy 2-Propyl Acetate	108-65-6		7%	0.0%	114.79	26935
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	16.40	3848
											Methyl n-Amyl Ketone	110-43-0		10%	0.0%	163.99	38478
ESSS903653 White Acrylic Polyester PPG	11.25 gph of topcoat, activator and hardener.	2.5:1 Topcoat Mix to Primer 90% of annual topcoat black 10% of annual topcoat white	202.5	5279	1.277	2157	56227	69.70%	30.30%	7.39	Acetone	67-64-1	3%	7%	0.0%	150.97	3936
											Barium Sulfate	7727-43-7		5.0%	50.0%	53.92	1406
											n-Butyl Acetate	123-86-4		7%	0.0%	150.97	3936
											1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	215.67	5623
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	21.57	562
											Methyl n-Amyl Ketone	110-43-0		5%	0.0%	107.83	2811
											Naphtha (Aromatic)	64742-95-6		5%	0.0%	107.83	2811
											Parachlorobenzotrifluoride	98-56-6	1%	5%	0.0%	107.83	2811
											Titanium Dioxide	13463-67-7		30%	50.0%	323.50	8434
											Xylenes	1330-20-7		1.0%	0.0%	21.57	562
											Zinc Sulfide	1314-98-3		5%	50.0%	53.92	1406
ESX510 Standard Activator PPG	6:1 Topcoat to Activator		33.75	8799	1.145	322	84025	0.29%	99.71%	22.14	Acetone	67-64-1	7%	13%	0.0%	41.90	10923
											Acetylacetone	123-54-6		30%	0.0%	96.69	25208
											Parachlorobenzotrifluoride	98-56-6	40%	70%	0.0%	225.60	58818

Toxic Air Pollutants - Paint Application	TAP Type (24 hr or Annual Averaging)	TAP Screening Level (lb/hr)	Total Uncontrolld Emissions (lb/hr)[9]	Uncontrolld Emissions (% of EL)	Allowable Ambient Conc. (AAC, mg/m3)	Impact at 1 lb/hr Emissions (mg/m3)	Persistence Factor	Uncontrolld Ambient Conc. (mg/m3)	Uncontrolld Conc. (% of AAC)
Acetone	585 (24 hr)	119	29.8	25.0%	89	0.0946	0.4		
n-Butyl Acetate	585 (24 hr)	47.3	15.2	32.1%	35.5				
Calcium Carbonate	585 (24 hr)	0.667	26.1	3919%	0.5			0.989	198%
Carbon Black	585 (24 hr)	0.23	3.78	1643%	0.175			0.143	81.7%
Hexamethylene diisocyanate	585 (24 hr)	0.002	0.0036	181%	0.0015			0.000	9.1%
n-Hexane	585 (24 hr)	12	0.292	2.4%	9				
Isopropyl Alcohol	585 (24 hr)	65.3	1.25	1.9%	49				
1-Methoxy 2-Propyl Acetate	585 (24 hr)	24	14.0	58.2%	3.6				
Naphtha (Stoddard Solvent)	585 (24 hr)	35	39.2	112%	26.25			1.483	5.6%
Parachlorobenzotrifluoride[8]	585 (24 hr)	NOTE 8	13.9	NOTE 8	0.253			0.525	208%
Silica- crystalline	585 (24 hr)	0.0067	0.6535	9754%	0.005			0.0247	494%
Toluene	585 (24 hr)	25	2.92	11.7%	18.75				
Xylene	585 (24 hr)	29	2.21	7.6%	21.75				

Hazardous Air Pollutants	Potential to Emit (tons/yr)
Hexamethylene diisocyanate	0.0113
n-Hexane	1.3
Toluene	12.8
Xylene	1.9
Total	**16.0**

Criteria Pollutants	Potential to Emit (tons/yr)
PM_{10} (Note 7)	138.7
VOC (Note 2)	167.0

Note 1: Capacity of Sames MIV gun is 12 fl.oz/minute = 5.625 gallon/hour. Uncontrolled emissions based on continuous, 2 gun operation.
Topcoat Mix: 6 parts acrylic, 1 part activator, 1 part hardener.
Primer Mix: no additive to primer.
Note 2: All volatile material counted as VOC except for acetone and parachlorobenzotrifluoride.
Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system.
For the non-volatile constituents in these calculations, 50% coating retention was assumed.
Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate in the ESH hardener is 0.18%, and 85-95% is chemically reduced and retained in the coating upon mixing with acrylic paint prior to spraying.
Note 5: DTL10 used for equipment cleaning.
Note 6: Based on Screen3 modeling.
Note 7: Based on combined coatings' solids content adjusted for coating retention.
Note 8: No EL available for PCBTF. AAC for PCBTF provided by IDEQ.
Note 9: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day. For 586 TAPs, sum of component lb/yr divided by 8760 hrs/yr.

Table 5-4b:
Controlled Emissions with Essential Paint Mix

Product ID Name Manufacturer	Usage Rate Basis[1]		Kit Avenue Proposed Usage		Product Specific Gravity (MSDS)	Kit Avenue Proposed Usage		Solids Content (MSDS wt%)	Volatile Content (wt%)	Controlled VOC Emissions[2] (tons/yr)	Component	CAS Number	Component Concentration (MSDS, wt%)		Coating Retention (%)[4]	Spray Booth Filter Efficiency (%)[8]	Estimated Controlled Emissions	
	Daily	Annual	gal/day	gal/yr		lb/day	lb/yr						min[7]	max			lb/day	lb/yr
ASP-435 Gray ASP-901 Black 3.5/2.8 VOC Shop Primers PPG	11.25 gph primer	2.5:1 Topcoat to Primer	270	4000	1.393	3137	46470	70.12%	29.88%	6.94	Calcium Carbonate	1317-65-3		40%	50.0%	98.0%	12.547	185.88
											Carbon Black	1333-86-4		5%	50.0%	98.0%	1.568	23.24
											Methyl Ethyl Ketoxime	96-29-7		1.0%	0.0%	0.0%	31.368	464.70
											Naphtha (Stoddard Solvent)	8052-41-3		30%	0.0%	0.0%	941.0	13941.1
											Naphtha (V.M. & P.)	8032-32-4		30%	0.0%	0.0%	941.0	13941.1
											Petroleum Distillates	64741-84-0		10%	0.0%	0.0%	313.676	4647.05
											Silica- crystalline	14808-60-7		1.0%	50.0%	98.0%	0.314	4.65
											Talc	14807-96-6		30%	50.0%	98.0%	9.410	139.41
											Titanium Dioxide	13463-67-7		5%	50.0%	98.0%	1.568	23.24
											Xylenes	1330-20-7		1.0%	0.0%	0.0%	31.368	464.70
DTL10 Laquer Thinner PPG	15 gal per day (Note 5)	30 gal per week (Note 5)	15	1560	0.80	100	10408	0.00%	100.00%	4.68	Acetone	67-64-1	10%	30%	0.0%	0.0%	30.02	3122.5
											i-Hexane	107-83-5		5%	0.0%	0.0%	5.004	520.42
											n-Hexane	110-54-3		7%	0.0%	0.0%	7.006	728.58
											Isopropyl Alcohol	67-63-0		30%	0.0%	0.0%	30.024	3122.50
											1-Methoxy 2-Propyl Acetate	108-65-6		5%	0.0%	0.0%	5.004	520.42
											3-Methylpentane	96-14-0		5%	0.0%	0.0%	5.004	520.42
											Naphtha	64742-89-8		5%	0.0%	0.0%	5.004	520.42
											Toluene	108-88-3		70%	0.0%	0.0%	70.056	7285.82
ESH200 Single Stage Hardener PPG	6:1 Topcoat to Hardener		17	1667	1.142	161	15874	89.03%	10.97%	0.87	Hexamethylene Diisocyanate (Note 4)	822-06-0		0.18%	85.0%	0.0%	0.043	4.3
											Hexane-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	98.0%	1.607	158.7
ESSS9000 Black Acrylic Polyester PPG	11.25 gph of topcoat, activator and hardener for 8 hours per day	300% of Chicago St. Facility	68	9000	0.971	547	72883	54.91%	45.09%	12.79	Acetone	67-64-1	10%	30%	0.0%	0.0%	163.987	21865.0
											n-Butyl Acetate	123-86-4		13%	0.0%	0.0%	71.061	9474.8
											Carbon Black	1333-86-4		1.5%	50.0%	98.0%	0.082	10.9
											1-Methoxy 2-Propyl Acetate	108-65-6		7%	0.0%	0.0%	38.204	5101.8
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	5.466	728.8
											Methyl n-Amyl Ketone	110-43-0		10%	0.0%	0.0%	54.662	7288.3
ESSS903653 White Acrylic Polyester PPG	5.625 gph of topcoat, activator and hardener for 8 hours per day	10% of total topcoat	34	1000	1.277	359	10650	69.70%	30.30%	1.40	Acetone	67-64-1	3%	7%	0.0%	0.0%	25.161	745.5
											Barium Sulfate	7727-43-7		5.0%	50.0%	98.0%	0.180	5.3
											n-Butyl Acetate	123-86-4		7%	0.0%	0.0%	25.161	745.5
											1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	0.0%	35.944	1065.0
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	3.594	106.5
											Methyl n-Amyl Ketone	110-43-0		5%	0.0%	0.0%	17.972	532.5
											Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	17.972	532.5
											Parachlorobenzotrifluoride	98-56-6	1%	5%	0.0%	0.0%	17.972	532.5
											Titanium Dioxide	13463-67-7		30%	50.0%	98.0%	1.078	32.0
											Xylenes	1330-20-7		1.0%	0.0%	0.0%	3.594	106.5
											Zinc Sulfide	1314-98-3		5%	50.0%	98.0%	0.180	5.3
ESX510 Standard Activator PPG	6:1 Topcoat to Activator		17	1667	1.145	161	15916	0.29%	99.71%	4.19	Acetone	67-64-1	7%	13%	0.0%	0.0%	20.949	2069.0
											Acetylacetone	123-54-6		30%	0.0%	0.0%	48.343	4774.7
											Parachlorobenzotrifluoride	98-56-6	40%	70%	0.0%	0.0%	112.801	11140.9

Toxic Air Pollutants - Paint Application	TAP Type (24 hr or Annual Averaging)	Allowable Ambient Conc. (AAC, mg/m^3)	Total Controlled Emissions (lb/hr)[10]	Impact at 1 lb/hr Emissions (mg/m^3)	Persistence Factor	Controlled Ambient Conc. (mg/m^3)	Controlled Conc. (% of AAC)
Acetone	585 (24 hr)	89	10.0	0.0946	0.4		
n-Butyl Acetate	585 (24 hr)	35.5	4.01				
Calcium Carbonate	585 (24 hr)	0.5	0.523			0.01977	4.0%
Carbon Black	585 (24 hr)	0.175	0.069				
Hexamethylene diisocyanate	585 (24 hr)	0.0015	0.00181				
n-Hexane	585 (24 hr)	9	0.292				
Isopropyl Alcohol	585 (24 hr)	49	1.25				
1-Methoxy 2-Propyl Acetate	585 (24 hr)	3.6	3.30				
Naphtha (Stoddard Solvent)	585 (24 hr)	26.25	39.2				
Parachlorobenzotrifluoride[9]	585 (24 hr)	0.253	5.45			0.20608	81.5%
Silica- crystalline	585 (24 hr)	0.005	0.0131			0.00049	9.9%
Toluene	585 (24 hr)	18.75	2.92				
Xylene	585 (24 hr)	21.75	1.46				

Criteria Pollutants	Averaging Period	NAAQS Standard (ug/m^3)	Controlled Emissions (lb/hr)	Impact at 1 lb/hr Emissions (ug/m^3)[6]	Persistence Factor	Controlled Emissions Impact (ug/m^3)	Controlled Conc. (% of NAAQS)
PM_{10}[7]	24-hr[11]	150	0.96	94.6	0.4	36.2	24.2%
	Annual	50	0.108		0.08	0.81	1.6%

Hazardous Air Pollutants (HAPs)-	Controlled Emissions (tons/yr)	Major Facility Threshold (tons//yr)
Hexamethylene diisocyanate	0.0021	10
n-Hexane	0.36	10
Toluene	3.6	10
Xylene	0.29	10
Total	4.3	25

Criteria Pollutants	Controlled Emissions (tons/yr)	Major Facility Threshhold (tons/yr)
PM_{10} (Note 7)	0.5	100
VOC (Note 2)	30.9	100

Note 1: Capacity of Sames MIV gun is 12 fl. ounces per minute = 5.625 gallon/hour.
Topcoat Mix: 6 parts acrylic, 1 part activator, 1 part hardener.
Primer Mix: no additive to primer.
Note 2: All volatile material counted as VOC except for acetone and parachlorobenzotrifluoride.
Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system. For the non-volatile constituents in these calculations, 50% coating retention was assumed.
Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate in the ESH hardener is 0.18%, and 85-95% is chemically reduced and retained in the coating upon mixing with paint prior to spraying.
Note 5: DTL10 used for equipment cleaning.
Note 6: Based on Screen3 modeling.
Note 7: Based on combined coatings' solids content adjusted for coating retention and filter equipment efficiency.
Note 8: American Filter AG-28 rated removal efficiency = 98.13%. 98% used for calculating controlled emissions of non-volatile components.
Note 9: No EL available for PCBTF. AAC for PCBTF provided by IDEQ.
Note 10: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day. For 586 TAPs, sum of component lb/yr divided by 8760 hrs/yr.
Note 11: Based on two gun, 24-hr max capacity and coating with highest solids content. The highest solids coating is Primer

Table 5-5a:
Uncontrolled Emissions with Combo Paint Mix

Product ID Name Manufacturer	Usage Rate Basis[1]		Kit Avenue Unrestricted Usage		Product Specific Gravity (MSDS)	Kit Avenue Unrestricted Usage		Solids Content (MSDS wt%)	Volatile Content (wt%)	VOC PTE[2] (tons/yr)	Component	CAS Number	Component Concentration (MSDS, wt%)		Coating Retention (%)[3]	Component Potential to Emit	
	Daily	Annual	gal/day	gal/yr		lb/day	lb/yr						min[2]	max		lb/day	lb/yr
DP50LF Gray DP90LF Black Epoxy Primers PPG	11.25 gph of primer and catalyst	Continuous two gun operation (98550 gal/yr) 2.5:1 acrylic Mix to Primer 90% of annual acrylic black 10% of annual acrylic white	180	18771	1.338	2009	209469	62.27%	37.73%	39.52	Barium Sulfate	7727-43-7		30%	50.0%	301.29	31420
											2-Butoxy Ethanol	111-76-2		5%	0.0%	100.43	10473
											Calcium Carbonate	1317-65-3		30%	50.0%	301.29	31420
											Carbon Black	1333-86-4		5%	50.0%	50.22	5237
											Epoxy Resin	25068-38-6		30%	50.0%	301.29	31420
											Ethyl Benzene -	100-41-4		1%	0.0%	20.09	2095
											Methyl n-Amyl Ketone	110-43-0		13%	0.0%	261.12	27231
											Methyl Isobutyl Ketone	108-10-1		7%	0.0%	140.60	14663
											Naphtha (Aromatic)	64742-95-6		5%	0.0%	100.43	10473
											Silica- amorphous	112926-00-8		1.5%	50.0%	15.06	1571
											Silica- crystalline	14808-60-7		1.0%	50.0%	10.04	1047
											Talc	14807-96-6		5%	50.0%	50.22	5237
											Titanium Dioxide	13463-67-7		10%	50.0%	100.43	10473
											Toluene	108-88-3		7%	0.0%	140.60	14663
											1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	100.43	10473
											Vinyl Resin	25086-48-0		5%	50.0%	50.22	5237
											Xylenes	1330-20-7		5%	0.0%	100.43	10473
DP401LF Epoxy Primer Catalyst PPG	2:1 Primer to Catalyst		90	9386	0.880	661	68884	29.77%	70.23%	24.19	2-Butoxy Ethanol	111-76-2		10%	0.0%	66.05	6888
											Isopropyl Alcohol	67-63-0		7%	0.0%	46.24	4822
											Naphtha (Aromatic)	64742-95-6		13%	0.0%	85.87	8955
											Polyamide Resin	80100337-5132		30%	50.0%	99.08	10333
											Propyl Alcohol	71-23-8		30%	0.0%	198.16	20665
											1,2,4-Trimethyl Benzene	95-63-6		7%	0.0%	46.24	4822
											Xylenes	1330-20-7		30%	0.0%	198.16	20665
DTL10 Laquer Thinner PPG	15 gallons per day (Note 5)		15	5475	0.80	100	36529	0.00%	100.00%	16.44	Acetone	67-64-1	10%	30%	0.0%	30.02	10959
											i-Hexane	107-83-5		5%	0.0%	5.00	1826
											n-Hexane	110-54-3		7%	0.0%	7.01	2557
											Isopropyl Alcohol	67-63-0		30%	0.0%	30.02	10959
											1-Methoxy 2-Propyl Acetate	108-65-6		5%	0.0%	5.00	1826
											3-Methylpentane	96-14-0		5%	0.0%	5.00	1826
											Naphtha	64742-89-8		5%	0.0%	5.00	1826
											Toluene	108-88-3		70%	0.0%	70.06	25570
ESH200 Single Stage Hardener PPG	6:1 acrylic to Hardener		67.5	8799	1.142	643	83805	89.03%	10.97%	4.60	Hexamethylene Diisocyanate (Note 4)	822-06-0		0.18%	85.0%	0.17	23
											Hexano-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	321.44	41903
ESSS9000 Black Acrylic Polyester PPG	11.25 gph of acrylic, activator and hardener.	Continuous two gun operation (98550 gal/yr)	202.5	47515	0.971	1640	384785	54.91%	45.09%	67.51	Acetone	67-64-1	10%	30%	0.0%	491.96	115435
											n-Butyl Acetate	123-86-4		13%	0.0%	213.18	50022
											Carbon Black	1333-86-4		1.5%	50.0%	12.30	2886
											1-Methoxy 2-Propyl Acetate	108-65-6		7%	0.0%	114.79	26935
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	16.40	3848
											Methyl n-Amyl Ketone	110-43-0		10%	0.0%	163.99	38478
ESSS903653 White Acrylic Polyester PPG	11.25 gph of acrylic, activator and hardener.	2.5:1 acrylic Mix to Primer 90% of annual acrylic black 10% of annual acrylic white	202.5	5279	1.277	2157	56227	69.70%	30.30%	7.39	Acetone	67-64-1	3%	7%	0.0%	150.97	3936
											Barium Sulfate	7727-43-7		5.0%	50.0%	53.92	1406
											n-Butyl Acetate	123-86-4		7%	0.0%	150.97	3936
											1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	215.67	5623
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	21.57	562
											Methyl n-Amyl Ketone	110-43-0		5%	0.0%	107.83	2811
											Naphtha (Aromatic)	64742-95-6		5%	0.0%	107.83	2811
											Parachlorobenzotrifluoride	98-56-6	1%	5%	0.0%	107.83	2811
											Titanium Dioxide	13463-67-7		30%	50.0%	323.50	8434
											Xylenes	1330-20-7		1.0%	0.0%	21.57	562
											Zinc Sulfide	1314-98-3		5%	50.0%	53.92	1406
ESX510 Standard Activator PPG	6:1 acrylic to Activator		33.75	8799	1.145	322	84025	0.29%	99.71%	22.14	Acetone	67-64-1	7%	13%	0.0%	41.90	10923
											Acetylacetone	123-54-6		30%	0.0%	96.69	25208
											Parachlorobenzotrifluoride	98-56-6	40%	70%	0.0%	225.60	58818

Toxic Air Pollutants - Paint Application	TAP Type (24 hr or Annual Averaging)	TAP Screening Level (lb/hr)	Total Uncontrolled Emissions (lb/hr)[9]	Uncontrolled Emissions (% of EL)	Allowable Ambient Conc. (AAC, mg/m³)	Impact at 1 lb/hr Emissions (mg/m³)[8]	Persistence Factor	Uncontrolld Ambient Conc. (mg/m³)	Uncontrolld Conc. (% of AAC)
Acetone	585 (24 hr)	119	29.8	25.0%	89	0.0946	0.4		
2-Butoxy Ethanol	585 (24 hr)	8	6.94	86.7%	6				
n-Butyl Acetate	585 (24 hr)	47.3	15.2	32.1%	35.5				
Calcium Carbonate	585 (24 hr)	0.667	12.6	1882%	0.5			0.475	95.0%
Carbon Black	585 (24 hr)	0.23	4.70	2042%	0.175			0.178	101.5%
Ethyl Benzene	585 (24 hr)	29	0.84	2.9%	21.75				
Hexamethylene diisocyanate	585 (24 hr)	0.002	0.0072	362%	0.0015			0.0003	18.2%
n-Hexane	585 (24 hr)	12	0.29	2.4%	9				
Isopropyl Alcohol	585 (24 hr)	65.3	3.18	4.9%	49				
1-Methoxy 2-Propyl Acetate	585 (24 hr)	24	14.0	58.2%	3.6				
Methyl n-Amyl Ketone	585 (24 hr)	15.7	22.2	141%	11.75			0.840	7.1%
MIBK	585 (24 hr)	13.7	5.86	42.8%	10.25				
Parachlorobenzotrifluoride[8]	585 (24 hr)	NOTE 8	13.9	NOTE 8	0.253			0.525	208%
Propyl Alcohol	585 (24 hr)	33.3	8.26	24.8%	25				
Silica- amorphous	585 (24 hr)	0.667	0.628	94.1%	0.5				
Silica- crystalline	585 (24 hr)	0.0067	0.4185	6246%	0.005			0.016	317%
Toluene	585 (24 hr)	25	8.78	35.1%	18.75				
1,2,4-Trimethyl Benzene	585 (24 hr)	8.2	6.11	74.5%	6.15				
Xylene	585 (24 hr)	29	13.3	46.0%	21.75				

Hazardous Air Pollutants	Uncontrolled PTE (tons/yr)
Ethyl Benzene	1.0
Hexamethylene diisocyanate	0.011
n-Hexane	1.3
MIBK	7.3
Toluene	20.1
Xylene	15.9
Total	45.6

Criteria Pollutants	Uncontrolled PTE (tons/yr)
PM_{10} (Note 7)	119.1
VOC (Note 2)	181.8

Note 1: Capacity of Sames MIV gun is 12 fl.oz./minute = 5.625 gallon/hour. Uncontrolled emissions based on continuous, 2 gun operation.
Topcoat Mix: 6 parts acrylic, 1 part activator, 1 part hardener.
Primer Mix: 2 parts primer, 1 part catalyst.
Note 2: All volatile material counted as VOC except for acetone and parachlorobenzotrifluoride.
Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system.
For the non-volatile constituents in these calculations, 50% coating retention was assumed.
Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate in the ESH hardener is 0.18%, and 85-95% is chemically reduced and retained in the coating upon mixing with paint prior to spraying.
Note 5: DTL10 used for equipment cleaning.
Note 6: Based on Screen3 modeling.
Note 7: Based on combined coatings' solids content adjusted for coating retention.
Note 8: No EL available for PCBTF. AAC for PCBTF provided by IDEQ.
Note 9: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day. For 586 TAPs, sum of component lb/yr divided by 8760 hrs/yr.

Table 5-5b:
Controlled Emissions with Combo Paint Mix

Product ID Name Manufacturer	Usage Rate Basis[1]		Kit Avenue Proposed Usage		Product Specific Gravity (MSDS)	Kit Avenue Proposed Usage		Solids Content (MSDS wt%)	Volatile Content (wt%)	VOC PTE[2] (tons/yr)	Component	CAS Number	Component Concentration (MSDS, wt%)		Coating Retention (%)[3]	Spray Booth Filter Efficiency (%)[8]	Estimated Controlled Emissions	
	Daily	Annual	gal/day	gal/yr		lb/day	lb/yr						min	max			lb/day	lb/yr
DP50LF Gray DP90LF Black Epoxy Primers PPG	11.25 gph of primer and catalyst	2.5:1 acrylic Mix to Primer Mix	180	3556	1.338	2009	39676	62.27%	37.73%	7.48	Barium Sulfate	7727-43-7		30%	50.0%	98.0%	6.03	119.03
											2-Buloxy Ethanol	111-76-2		5%	0.0%	0.0%	100.43	1983.81
											Calcium Carbonate	1317-65-3		30%	50.0%	98.0%	6.03	119.03
											Carbon Black	1333-86-4		5%	50.0%	98.0%	1.00	19.84
											Epoxy Resin	25068-38-6		30%	50.0%	98.0%	6.03	119.03
											Ethyl Benzene	100-41-4		1%	0.0%	0.0%	20.09	396.76
											Methyl n-Amyl Ketone	110-43-0		13%	0.0%	0.0%	261.12	5157.90
											Methyl Isobutyl Ketone	108-10-1		7%	0.0%	0.0%	140.60	2777.33
											Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	100.43	1983.81
											Silica- amorphous	112926-00-8		1.5%	50.0%	98.0%	0.30	5.95
											Silica- crystalline	14808-60-7		1.0%	50.0%	98.0%	0.20	3.97
											Talc	14807-96-6		5%	50.0%	98.0%	1.00	19.84
											Titanium Dioxide	13463-67-7		10%	50.0%	98.0%	2.01	39.68
											Toluene	108-88-3		7%	0.0%	0.0%	140.60	2777.33
											1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	0.0%	100.43	1983.81
											Vinyl Resin	25086-48-0		5%	50.0%	98.0%	1.00	19.84
											Xylenes	1330-20-7		5%	0.0%	0.0%	100.43	1983.81
DP401LF Epoxy Primer Catalyst PPG	2:1 Primer to Catalyst		90	1778	0.880	661	13047	29.77%	70.23%	4.58	2-Buloxy Ethanol	111-76-2		10%	0.0%	0.0%	66.05	1304.75
											Isopropyl Alcohol	67-63-0		7%	0.0%	0.0%	46.24	913.32
											Naphtha (Aromatic)	64742-95-6		13%	0.0%	0.0%	85.87	1696.17
											Polyamide Resin	80100337-5132		30%	50.0%	98.0%	1.98	39.14
											Propyl Alcohol	71-23-8		30%	0.0%	0.0%	198.16	3914.24
											1,2,4-Trimethyl Benzene	95-63-6		7%	0.0%	0.0%	46.24	913.32
											Xylenes	1330-20-7		30%	0.0%	0.0%	198.16	3914.24
DTL10 Laquer Thinner PPG	15 gal per day (Note 5)	30 gal per week (Note 5)	15	1560	0.80	100	10408	0.00%	100.00%	4.68	Acetone	67-64-1	10%	30%	0.0%	0.0%	30.02	3122.50
											i-Hexane	107-83-5		5%	0.0%	0.0%	5.00	520.42
											n-Hexane	110-54-3		7%	0.0%	0.0%	7.01	728.58
											Isopropyl Alcohol	67-63-0		30%	0.0%	0.0%	30.02	3122.50
											1-Methoxy 2-Propyl Acetate	108-65-6		5%	0.0%	0.0%	5.00	520.42
											3-Methylpentane	96-14-0		5%	0.0%	0.0%	5.00	520.42
											Naphtha	64742-89-8		5%	0.0%	0.0%	5.00	520.42
											Toluene	108-88-3		70%	0.0%	0.0%	70.06	7285.82
ESH200 Single Stage Hardener PPG	6:1 acrylic to Hardener		17	1667	1.142	161	15874	89.03%	10.97%	0.87	Hexamethylene Diisocyanate (Note 4)	822-06-0		0.18%	85.0%	0.0%	0.04	4.29
											Hexane-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	98.0%	1.61	158.74
ESSS9000 Black Acrylic Polyester PPG	11.25 gph of acrylic, activator and hardener for 8 hours per day.	300% of Chicago St. Facility	68	9000	0.971	547	72883	54.91%	45.09%	12.79	Acetone	67-64-1	10%	30%	0.0%	0.0%	163.99	21864.98
											n-Butyl Acetate	123-86-4		13%	0.0%	0.0%	71.06	9474.82
											Carbon Black	1333-86-4		1.5%	50.0%	98.0%	0.08	10.93
											1-Methoxy 2-Propyl Acetate	108-65-6		7%	0.0%	0.0%	38.26	5101.83
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	5.47	728.83
											Methyl n-Amyl Ketone	110-43-0		10%	0.0%	0.0%	54.66	7288.33
ESSS903653 White Acrylic Polyester PPG	5.625 gph of acrylic, activator and hardener for 8 hours per day	10% of total acrylic	34	1000	1.277	359	10650	69.70%	30.30%	1.40	Acetone	67-64-1	3%	7%	0.0%	0.0%	25.16	745.51
											Barium Sulfate	7727-43-7		5.0%	50.0%	98.0%	0.18	5.33
											n-Butyl Acetate	123-86-4		7%	0.0%	0.0%	25.16	745.51
											1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	0.0%	35.94	1065.02
											2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	3.59	106.50
											Methyl n-Amyl Ketone	110-43-0		5%	0.0%	0.0%	17.97	532.51
											Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	17.97	532.51
											Parachlorobenzotrifluoride	98-56-6	1%	5%	0.0%	0.0%	17.97	532.51
											Titanium Dioxide	13463-67-7		30%	50.0%	98.0%	1.08	31.95
											Xylenes	1330-20-7		1.0%	0.0%	0.0%	3.59	106.50
											Zinc Sulfide	1314-98-3		5%	50.0%	98.0%	0.18	5.33
ESX510 Standard Activator PPG	6:1 acrylic to Activator		17	1667	1.145	161	15916	0.29%	99.71%	4.19	Acetone	67-64-1	7%	13%	0.0%	0.0%	20.95	2069.02
											Acetylacetone	123-54-6		30%	0.0%	0.0%	48.34	4774.65
											Parachlorobenzotrifluoride	98-56-6	40%	70%	0.0%	0.0%	112.80	11140.85

Toxic Air Pollutants - Paint Application	TAP Type (24 hr or Annual Averaging)	Allowable Ambient Conc. (AAC, mg/m3)	Total Controlled Emissions (lb/hr)[10]	Impact at 1 lb/hr Emissions (mg/m3)[6]	Persistence Factor	Controlled Ambient Conc. (mg/m3)	Controlled Conc. (% of AAC)
Acetone	585 (24 hr)	89	10.01	0.0946	0.4		
2-Buloxy Ethanol	585 (24 hr)	6	6.937				
n-Butyl Acetate	585 (24 hr)	35.5	4.01				
Calcium Carbonate	585 (24 hr)	0.5	0.251				
Carbon Black	585 (24 hr)	0.175	0.045				
Ethyl Benzene	585 (24 hr)	21.75	0.84				
Hexamethylene diisocyanate	585 (24 hr)	0.0015	0.0018				
n-Hexane	585 (24 hr)	9	0.29				
Isopropyl Alcohol	585 (24 hr)	49	3.18				
1-Methoxy 2-Propyl Acetate	585 (24 hr)	3.6	3.30				
Methyl n-Amyl Ketone	585 (24 hr)	11.75	13.91				
MIBK	585 (24 hr)	10.25	5.86				
Parachlorobenzotrifluoride[9]	585 (24 hr)	0.253	5.45			0.20608	81.5%
Propyl Alcohol	585 (24 hr)	25	8.26				
Silica- amorphous	585 (24 hr)	0.5	0.013				
Silica- crystalline	585 (24 hr)	0.005	0.0084			0.00032	6.3%
Toluene	585 (24 hr)	18.75	8.78				
1,2,4-Trimethyl Benzene	585 (24 hr)	6.15	6.11				
Xylene	585 (24 hr)	21.75	12.59				

Criteria Pollutants	Averaging Period	NAAQS Standard (ug/m3)	Controlled Emissions (lb/hr)	Impact at 1 lb/hr Emissions (ug/m3)[8]	Persistence Factor	Controlled Emissions Impact (ug/m3)	Controlled Conc. (% of Sig.)
PM_{10} [7]	24-hr[11]	150	0.60	94.6	0.4	22.8	15%
	Annual	50	0.103		0.08	0.78	2%

Hazardous Air Pollutants	Controlled Emissions (tons/yr)	Major Facility Threshold (tons/yr)
Ethyl Benzene	0.20	10
Hexamethylene diisocyanate	0.0021	10
n-Hexane	0.36	10
MIBK	1.4	10
Toluene	3.6	10
Xylene	3.0	10
Total	**8.6**	**25**

Criteria Pollutants	Estimated Controlled Emissions (tons/yr)	Major Facility Threshhold (tons/yr)
PM_{10} (Note 7)	0.45	100
VOC (Note 2)	36	100

Note 1: Capacity of Sames MIV gun is 12 fluid ounces per minute = 5.625 gallon/hour.
Topcoat Mix: 6 parts acrylic, 1 part activator, 1 part hardener.
Primer Mix: 2 parts primer, 1 part catalyst.
Note 2: All volatile material counted as VOC except for acetone and parachlorobenzotrifluoride.
Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system. For the non-volatile constituents in these calculations, 50% coating retention was assumed.
Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate in the ESH hardener is 0.18%, ar 85-95% is chemically reduced and retained in the coating upon mixing with paint prior to spraying.
Note 5: DTL10 used for equipment cleaning.
Note 6: Based on Screen3 modeling.
Note 7: Based on combined coatings' solids content adjusted for coating retention and control equipment efficiency.
Note 8: American Filter AG-28 rated removal efficiency = 98.13%. 98% used for calculating controlled emissions of non-volatile components.
Note 9: No EL available for PCBTF. AAC for PCBTF provided by IDEQ.
Note 10: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day. For 586 TAPs, sum of component lb/yr divided by 8760 hrs/yr.
Note 11 Based on two gun, 24-hr max capacity and coating w/ highest solids content.The highest solids coating is: Primer

Table 5-6:
Paint Booths Controlled Emissions (w/ Proposed Permit Limits and Unrestricted Heater Operations)

Product ID Name Manufacturer	Kit Avenue Proposed Permit Limits[1]		Product Specific Gravity (MSDS)	Kit Avenue Proposed Usage		Solids Content (MSDS wt%)	Volatile Content (wt%)	Controlled VOC Emissions[2] (tons/yr)	Annual Operating Days	Component	CAS Number	Component Concentration (MSDS, wt%)		Coating Retention (%)[3]	Spray Booth Filter Efficiency (%)[4]	Estimated Controlled Emissions	
	gal/day	gal/yr		lb/day	lb/yr							min	max			lb/day	lb/yr
ASP-435 Gray ASP-901 Black 3.5/2.8 VOC Shop Primers PPG	270	4000	1.393	3137	46470	70.12%	29.88%	6.94	260	Calcium Carbonate	1317-65-3		40%	50.0%	98.0%	12.55	185.9
										Carbon Black	1333-86-4		5%	50.0%	98.0%	1.57	23.2
										Methyl Ethyl Ketoxime	96-29-7		1.0%	0.0%	0.0%	31.37	464.7
										Naphtha (Stoddard Solvent)	8052-41-3		30%	0.0%	0.0%	941.03	13941.3
										Naphtha (V.M. & P.)	8032-32-4		30%	0.0%	0.0%	941.03	13941.3
										Petroleum Distillates	64741-84-0		10%	0.0%	0.0%	313.68	4647.0
										Silica- crystalline	14808-60-7		1.0%	50.0%	98.0%	0.31	4.6
										Talc	14807-96-6		30%	50.0%	98.0%	9.41	139.4
										Titanium Dioxide	13463-67-7		5%	50.0%	98.0%	1.57	23.2
										Xylenes	1330-20-7		1.0%	0.0%	0.0%	31.37	464.7
DAR- Acrylic Enamels PPG	144	3075	0.948	1139	24312	44.79%	55.21%	6.71	260	Carbon Black	1333-86-4		5%	50.0%	98.0%	0.57	12.2
										Ethyl Benzene	100-41-4		7%	0.0%	0.0%	79.70	1701.8
										Methyl Ethyl Ketone	78-93-3		7%	0.0%	0.0%	79.70	1701.8
										Titanium Dioxide	13463-67-7		30%	50.0%	98.0%	3.42	72.9
										Xylenes	1330-20-7		70%	0.0%	0.0%	796.96	17018.4
DP50LF Gray DP90LF Black Epoxy Primers PPG	180	3556	1.338	2009	39676	62.27%	37.73%	7.48	260	Barium Sulfate	7727-43-7		30%	50.0%	98.0%	6.03	119.6
										2-Butoxy Ethanol	111-76-2		5%	0.0%	0.0%	100.43	1983.8
										Calcium Carbonate	1317-65-3		30%	50.0%	98.0%	6.03	119.0
										Carbon Black	1333-86-4		5%	50.0%	98.0%	1.00	19.8
										Epoxy Resin	25068-38-6		30%	50.0%	98.0%	6.03	119.0
										Ethyl Benzene	100-41-4		1%	0.0%	0.0%	20.09	396.8
										Methyl n-Amyl Ketone	110-43-0		13%	0.0%	0.0%	261.12	5157.9
										Methyl Isobutyl Ketone	108-10-1		7%	0.0%	0.0%	140.60	2777.3
										Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	100.43	1983.8
										Silica- amorphous	112926-00-8		1.5%	50.0%	98.0%	0.30	6.0
										Silica- crystalline	14808-60-7		1.0%	50.0%	98.0%	0.20	4.0
										Talc	14807-96-6		5%	50.0%	98.0%	1.00	19.8
										Titanium Dioxide	13463-67-7		10%	50.0%	98.0%	2.01	39.7
										Toluene	108-88-3		7%	0.0%	0.0%	140.60	2777.3
										1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	0.0%	100.43	1983.8
										Vinyl Resin	25086-48-0		5%	50.0%	98.0%	1.00	19.8
										Xylenes	1330-20-7		5%	0.0%	0.0%	100.43	1983.8
DP40317 Epoxy Primer Catalyst PPG	90	1778	0.880	663	13047	29.77%	70.23%	4.58	260	2-Butoxy Ethanol	111-76-2		10%	0.0%	0.0%	66.05	1306.7
										Isopropyl Alcohol	67-63-0		7%	0.0%	0.0%	46.24	913.3
										Naphtha (Aromatic)	64742-95-6		13%	0.0%	0.0%	85.87	1696.2
										Polyamide Resin	80100337-5332		30%	50.0%	98.0%	1.98	39.1
										Propyl Alcohol	71-23-8		30%	0.0%	0.0%	198.16	3914.2
										1,2,4-Trimethyl Benzene	95-63-6		7%	0.0%	0.0%	46.24	913.3
										Xylenes	1330-20-7		30%	0.0%	0.0%	198.16	3914.2
DT870 Reducer PPG	72	500	0.829	498	3457	0.00%	100.00%	1.73	260	n-Heptane	142-82-5		5%	0.0%	0.0%	24.89	172.8
										1-Methoxy 2-Propyl Acetate	108-65-6		30%	0.0%	0.0%	149.34	1037.3
										2-Methoxy 2-Propyl Acetate	70657-70-4		1%	0.0%	0.0%	4.98	34.6
										Methylcyclohexane	108-87-2		5%	0.0%	0.0%	24.89	172.8
										Methyl Ethyl Ketone	78-93-3		40%	0.0%	0.0%	199.12	1382.8
										Naphtha	64742-89-8		5%	0.0%	0.0%	24.89	172.8
										Naphtha (V.M. & P.)	8032-32-4		30%	0.0%	0.0%	149.34	1037.3
										Toluene	108-88-3		30%	0.0%	0.0%	149.34	1037.3
DTL10 Lacquer Thinner PPG	15	1560	0.80	300	10408	0.00%	100.0%	4.68	260	Acetone	67-64-1	10%	30%	0.0%	0.0%	30.02	3122.5
										i-Hexane	107-83-5		5%	0.0%	0.0%	5.00	520.4
										n-Hexane	110-54-3		7%	0.0%	0.0%	7.01	728.6
										Isopropyl Alcohol	67-63-0		30%	0.0%	0.0%	30.02	3122.5
										1-Methoxy 2-Propyl Acetate	108-65-6		5%	0.0%	0.0%	5.00	520.4
										3-Methylpentane	96-14-0		5%	0.0%	0.0%	5.00	520.4
										Naphtha	64742-89-8		5%	0.0%	0.0%	5.00	520.4
										Toluene	108-88-3		70%	0.0%	0.0%	70.06	7289.8
DTR400 DTR602 Reducers PPG	108	2306	0.812	731	15638	0.00%	100.00%	7.03	260	Acetone	67-64-1	30%	40%	0.0%	0.0%	292.55	6247.2
										Aromatic Hydrocarbon	64742-94-5		13%	0.0%	0.0%	95.08	2030.4
										n-Butyl Acetate	123-86-4		10%	0.0%	0.0%	73.14	1561.8
										n-Heptane	142-82-5		13%	0.0%	0.0%	95.08	2030.4
										i-Hexane	107-83-5		7%	0.0%	0.0%	51.20	1093.3
										n-Hexane	110-54-3		10%	0.0%	0.0%	73.14	1561.8
										Methylcyclohexane	108-87-2		13%	0.0%	0.0%	95.08	2030.4
										3-Methylpentane	96-14-0		7%	0.0%	0.0%	51.20	1093.3
										Naphtha	64742-89-8		30%	0.0%	0.0%	219.42	4685.4
										Naphtha (Aromatic)	64742-95-6		7%	0.0%	0.0%	51.20	1093.3
										Naphthalene	91-20-3		1.5%	0.0%	0.0%	10.97	234.3
										1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	0.0%	36.57	780.9
										Toluene	108-88-3		30%	0.0%	0.0%	219.42	4685.4
										Xylenes	1330-20-7		1.0%	0.0%	0.0%	7.31	156.2
DXR80 Ultra Urethane Hardener PPG	18	384	1.110	167	3558	83.39%	16.61%	0.30	260	n-Butyl Acetate	123-86-4		5%	0.0%	0.0%	8.33	177.9
										Hexamethylene Diisocyanate[5]	822-06-0		0.17%	85.0%	0.0%	0.04	0.9
										Hexane-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	98.0%	1.67	35.6
										1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	0.0%	16.66	355.8
										2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	1.67	35.6
										Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	8.33	177.9
										1,2,4-Trimethyl Benzene	95-63-6		1.5%	0.0%	0.0%	2.50	53.4
										Xylene	1330-20-7		1.0%	0.0%	0.0%	1.67	35.6
ESH200 Single Stage Hardener PPG	17	1667	1.142	161	15874	89.03%	10.97%	0.07	260	Hexamethylene Diisocyanate[5]	822-06-0		0.18%	85.0%	0.0%	0.04	4.3
										Hexane-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	98.0%	1.61	158.7
ES559000 Black Acrylic Polyester PPG	68	9000	0.971	547	72883	54.97%	45.09%	12.79	260	Acetone	67-64-1	10%	30%	0.0%	0.0%	163.99	21865.0
										n-Butyl Acetate	123-86-4		13%	0.0%	0.0%	71.06	9474.8
										Carbon Black	1333-86-4		1.5%	50.0%	98.0%	0.08	10.9
										1-Methoxy 2-Propyl Acetate	108-65-6		7%	0.0%	0.0%	38.26	5101.8
										2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	5.47	728.8
										Methyl n-Amyl Ketone	110-43-0		10%	0.0%	0.0%	54.66	7288.3
ES559036S3 White Acrylic Polyester PPG	34	1000	1.277	358	10650	69.70%	30.30%	1.48	260	Acetone	67-64-1	3%	7%	0.0%	0.0%	25.16	746.5
										Barium Sulfate	7727-43-7		5.0%	50.0%	98.0%	0.18	5.3
										n-Butyl Acetate	123-86-4		7%	0.0%	0.0%	25.16	746.5
										1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	0.0%	35.94	1065.8
										2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	3.59	106.5
										Methyl n-Amyl Ketone	110-43-0		5%	0.0%	0.0%	17.97	532.5
										Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	17.97	532.5
										Parachlorobenzotrifluoride	98-56-6	1%	5%	0.0%	0.0%	17.97	532.5
										Titanium Dioxide	13463-67-7		30%	50.0%	98.0%	1.08	32.0
										Xylenes	1330-20-7		1.0%	0.0%	0.0%	3.59	106.5
										Zinc Sulfide	1314-98-3		5%	50.0%	98.0%	0.18	5.3
ES5510 Standard Activator PPG	17	1667	1.145	161	15916	0.29%	99.72%	4.19	260	Acetone	67-64-1	7%	13%	0.0%	0.0%	20.95	2089.0
										Acetylacetone	123-54-6		30%	0.0%	0.0%	48.34	4774.7
										Parachlorobenzotrifluoride	98-56-6	40%	70%	0.0%	0.0%	112.80	11140.9

Kit Avenue Toxic Air Pollutants - Facility Total (Including all heaters)	TAP Type (24 hr or Annual Averaging)	Allowable Ambient Conc. (AAC, mg/m3)	Coating Controlled Emissions (lb/hr)[6]	Air Heaters Uncontrolled Emissions (lb/hr)	Total Controlled Emissions (lb/hr)	Maximum Impact at 1 lb/hr Emissions (mg/m3)[7]	Persistence Factor	Booth Emissions Impact (mg/m3)
Acetone	585 (24 hr)	89	22.19		22.19	0.0946	0.4	0.839
Arsenic	586 (Annual)	0.00023		1.17E-06	1.17E-06		0.125	1.38E-08
Barium	585 (24 hr)	0.025		2.57E-05	2.57E-05		0.4	9.73E-07
Benzene	586 (Annual)	0.12		1.23E-05	1.23E-05		0.125	1.45E-07
2-Butoxy Ethanol	585 (24 hr)	6	6.94		6.94		0.4	0.262
n-Butyl Acetate	585 (24 hr)	35.5	7.40		7.40		0.4	0.280
Cadmium	586 (Annual)	0.00056		6.43E-08	6.43E-08		0.125	7.60E-09
Calcium Carbonate	585 (24 hr)	0.5	0.774		0.77		0.4	0.0293
Carbon Black	585 (24 hr)	0.175	0.131		0.13		0.4	0.0050
Chromium	585 (24 hr)	0.025		8.18E-06	8.18E-06		0.4	3.09E-07
Cobalt	585 (24 hr)	0.0025		4.91E-07	4.91E-07		0.4	1.86E-08
Copper	585 (24 hr)	0.05		4.97E-06	4.97E-06		0.4	1.88E-07
Dichlorobenzene	585 (24 hr)	15		7.01E-06	7.01E-06		0.4	2.65E-07
Ethyl Benzene	585 (24 hr)	21.75	4.16		4.16		0.4	0.157
Formaldehyde	586 (Annual)	0.077		4.38E-04	4.38E-04		0.125	5.18E-06
n-Heptane	585 (24 hr)	82	5.00		5.00		0.4	0.189
Hexamethylene diisocyanate	585 (24 hr)	0.0015	0.00355		0.00355		0.4	1.34E-04
n-Hexane	585 (24 hr)	9	3.34	1.05E-02	3.35		0.4	0.127
Isopropyl Alcohol	585 (24 hr)	49	3.18		3.18		0.4	0.120
Manganese	585 (24 hr)	0.025		2.22E-06	2.22E-06		0.4	8.40E-08
Mercury	585 (24 hr)	0.0005		1.52E-06	1.52E-06		0.4	5.75E-08
1-Methoxy 2-Propyl Acetate	585 (24 hr)	3.6	10.22		10.22		0.4	0.386
Methyl n-Amyl Ketone	585 (24 hr)	11.75	13.91		13.91		0.4	0.526
Methylcyclohexane	585 (24 hr)	80.5	5.00		5.00		0.4	0.189
MEK	585 (24 hr)	29.5	11.62		11.62		0.4	0.439
MIBK	585 (24 hr)	18.25	5.86		5.86		0.4	0.222
Molybdenum	585 (24 hr)	0.25		6.43E-06	6.43E-06		0.4	2.43E-07
Naphtha (Stoddard Solvent)	585 (24 hr)	28.25	39.21		39.21		0.4	1.483
Naphthalene	585 (24 hr)	2.5	0.46	3.57E-06	4.57E-01		0.4	0.017
Nickel	586 (Annual)	0.0042		1.23E-05	1.23E-05		0.125	1.45E-07
Parachlorobenzotrifluoride[8]	585 (24 hr)	0.253	5.45		5.45		0.4	0.206
Pentane	585 (24 hr)	88.5		1.52E-02	1.52E-02		0.4	5.75E-06
Propyl Alcohol	585 (24 hr)	25	8.26		8.26		0.4	0.312
Silica- amorphous	585 (24 hr)	0.5	0.0126		0.0126		0.4	4.75E-06
Silica- crystalline	585 (24 hr)	0.005	0.0214		0.0214		0.4	8.11E-06
Toluene	585 (24 hr)	38.75	24.34	1.90E-05	24.34		0.4	0.919
1,2,4-Trimethyl Benzene	585 (24 hr)	6.15	7.74		7.74		0.4	0.293
Vanadium	585 (24 hr)	0.0025		1.34E-05	1.34E-05		0.4	5.08E-07
Xylenes	585 (24 hr)	21.75	47.5		47.48		0.4	1.796
Zinc	585 (24 hr)	0.05		1.70E-04	1.70E-04		0.4	6.43E-06

Kit Avenue Criteria Pollutants - Facility Total	Averaging Period	NAAQS Standard (ug/m3)	Coating Controlled Emissions (lb/hr)	Air Heaters Uncontrolled Emissions (lb/hr)	Total Controlled Emissions (lb/hr)	Impact at 1 lb/hr Emissions (ug/m3)[9]	Persistence Factor	Booth Emissions Impact (ug/m3)
NO_2	Annual	100		0.55	0.55	94.6	0.08	4.16
PM_{10}	24-hr[10]	150	0.92	0.044	0.96		0.40	36.3
	Annual	50	0.16	0.044	0.20		0.08	1.52

Kit Avenue HAPs - Facility Total	Controlled Emissions w/o Xylene Limit (tons/yr)	Permit Controlled Emissions (tons/yr)	Major Facility Threshold (tons/yr)
Arsenic	5.32E-06	5.32E-06	10
Benzene	5.58E-05	5.58E-05	10
Cadmium	2.82E-05	2.82E-05	10
Chromium	3.58E-05	3.58E-05	10
Cobalt	2.15E-06	2.15E-06	10
Dichlorobenzene	3.07E-05	3.07E-05	10
Ethyl Benzene	1.0	1.0	10
Formaldehyde	1.92E-03	1.92E-03	10
Hexamethylene diisocyanate	0.00250	2.50E-03	10
n-Hexane	2.4	2.4	10
Manganese	9.73E-06	9.73E-06	10
Mercury	6.66E-06	6.66E-06	10
MEK	1.5	1.5	10
MIBK	1.4	1.4	10
Naphthalene	0.12	0.12	10
Nickel	5.38E-05	5.38E-05	10
Toluene	7.0	7.0	10
Xylene (Note 11)	11.8	0.0	10
Total (Note 11)	26.2	24.3	25

Kit Avenue Criteria Pollutants - Facility Total	Controlled Emissions (lb/hr)	Controlled Emissions (tons/yr)	Major Facility Threshold (tons/yr)
PM_{10} (Note 2)	0.96	0.08	100
VOC (Note 2)	104.9	58.9	100

Note 1: See Tables A-1b, A-2b, A-3b for permit limit bases.
Note 2: All coating volatile content counted as VOC except for acetone and parachlorobenzotrifluoride.
Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system.
Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate is 0.17% in the DXR hardener, 0.18% in the ESH hardener, and 85-95% is chemically reduced and retained in the coating upon mixing with topcoat prior to spraying.
Note 5: Based on Screen3 modeling.
Note 6: No EL available for PCBTF. AAC for PCBTF provided by IDEQ.
Note 7: Based on combined coatings' solids content adjusted for coating retention (50%) and control equipment efficiency (98%) and unrestricted booth and dry room heaters' emissions.
Note 8: American Filter AG-2B rated removal efficiency = 98.13%. 98% used for calculating controlled emissions of non-volatile components.
Note 9: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day.
Note 10: Based on two gun, 24-hr max capacity and coating w/ highest solids content and unrestricted heater operations. The highest solids coating is: Essential Primer
Particulate emissions from the booth heaters are also included.
Note 11: Major thresholds exceeded due to cumulative effect of the different paint mixes. In practice, not all paint mixes will be used. To maintain synthetic minor facility status, xylene to be permit limited to less than 10 tons/year. This will keep Total HAPs below 25 tons per year.

Table 5-7:
Dry Room Controlled Emissions

Product ID Name Manufacturer	Kit Avenue Proposed Permit Limits[1]		Product Specific Gravity (MSDS)	Kit Avenue Proposed Usage		Solids Content (MSDS wt%)	Volatile Content (wt%)	Controlled VOC Emissions[2] (tons/yr)	Annual Operating Days	Component	CAS Number	Component Concentration (MSDS, wt%)		Coating Retention (%)[3]	Spray Booth Filter Efficiency (%)	Dry Room Release Rate (%)[4]	Estimated Controlled Emissions	
	gal/day	gal/yr		lb/day	lb/yr							min[5]	max				lb/day	lb/yr
ASP-435 Gray ASP-901 Black 3.5/2.8 VOC Shop Primers PPG	270	4000	1.393	3137	46470	70.12%	29.88%	6.94	260	Calcium Carbonate	1317-65-3		40%	50.0%	98.0%	0%	0.00	0.0
										Carbon Black	1333-86-4		5%	50.0%	98.0%	0%	0.00	0.0
										Methyl Ethyl Ketoxime	96-29-7		1.0%	0.0%	0.0%	10%	3.14	46.5
										Naphtha (Stoddard Solvent)	8052-41-3		30%	0.0%	0.0%	10%	94.10	1394.1
										Naphtha (V.M. & P.)	8032-32-4		30%	0.0%	0.0%	10%	94.10	1394.1
										Petroleum Distillates	64741-84-0		10%	0.0%	0.0%	10%	31.37	464.7
										Silica- crystalline	14808-60-7		1.0%	50.0%	98.0%	0%	0.00	0.0
										Talc	14807-96-6		30%	50.0%	98.0%	0%	0.00	0.0
										Titanium Dioxide	13463-67-7		5%	50.0%	98.0%	0%	0.00	0.0
										Xylenes	1330-20-7		1.0%	0.0%	0.0%	10%	3.14	46.5
DAR- Acrylic Enamels PPG	144	3075	0.948	1139	24312	44.79%	55.21%	6.71	260	Carbon Black	1333-86-4		5%	50.0%	98.0%	0%	0.00	0.0
										Ethyl Benzene	100-41-4		7%	0.0%	0.0%	10%	7.97	170.2
										Methyl Ethyl Ketone	78-93-3		7%	0.0%	0.0%	10%	7.97	170.2
										Titanium Dioxide	13463-67-7		30%	50.0%	98.0%	0%	0.00	0.0
										Xylenes	1330-20-7		70%	0.0%	0.0%	10%	79.73	1701.8
DP50LF Gray DP90LF Black Epoxy Primers PPG	180	3556	1.336	2009	39670	62.27%	37.73%	7.40	260	Barium Sulfate	7727-43-7		30%	50.0%	98.0%	0%	0.00	0.0
										2-Butoxy Ethanol	111-76-2		5%	0.0%	0.0%	10%	10.04	198.4
										Calcium Carbonate	1317-65-3		30%	50.0%	98.0%	0%	0.00	0.0
										Carbon Black	1333-86-4		5%	50.0%	98.0%	0%	0.00	0.0
										Epoxy Resin	25068-38-6		30%	50.0%	98.0%	0%	0.00	0.0
										Ethyl Benzene	100-41-4		1%	0.0%	0.0%	10%	2.01	39.7
										Methyl n-Amyl Ketone	110-43-0		13%	0.0%	0.0%	10%	26.11	515.8
										Methyl Isobutyl Ketone	108-10-1		7%	0.0%	0.0%	10%	14.06	277.7
										Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	10%	10.04	198.4
										Silica- amorphous	112926-00-8		1.5%	50.0%	98.0%	0%	0.00	0.0
										Silica- crystalline	14808-60-7		1.0%	50.0%	98.0%	0%	0.00	0.0
										Talc	14807-96-6		5%	50.0%	98.0%	0%	0.00	0.0
										Titanium Dioxide	13463-67-7		10%	50.0%	98.0%	0%	0.00	0.0
										Toluene	108-88-3		7%	0.0%	0.0%	10%	14.06	277.7
										1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	0.0%	10%	10.04	198.4
										Vinyl Resin	25068-46-6		5%	50.0%	98.0%	0%	0.00	0.0
										Xylenes	1330-20-7		5%	0.0%	0.0%	10%	10.04	198.4
DP401LF Epoxy Primer Catalyst PPG	90	1778	0.860	661	13047	29.77%	70.23%	4.58	260	2-Butoxy Ethanol	111-76-2		10%	0.0%	0.0%	10%	6.61	130.5
										Isopropyl Alcohol	67-63-0		7%	0.0%	0.0%	10%	4.62	91.3
										Naphtha (Aromatic)	64742-95-6		13%	0.0%	0.0%	10%	8.58	169.6
										Polyamide Resin	68410937-5132		30%	50.0%	98.0%	0%	0.00	0.0
										Propyl Alcohol	71-23-8		30%	0.0%	0.0%	10%	19.82	391.4
										1,2,4-Trimethyl Benzene	95-63-6		7%	0.0%	0.0%	10%	4.62	91.3
										Xylenes	1330-20-7		30%	0.0%	0.0%	10%	19.82	391.4
DT670 Reducer PPG	72	500	0.829	498	3457	0.00%	100.00%	1.73	260	n-Heptane	142-82-5		5%	0.0%	0.0%	10%	2.49	17.3
										1-Methoxy 2-Propyl Acetate	108-65-6		30%	0.0%	0.0%	10%	14.93	103.7
										2-Methoxy 2-Propyl Acetate	70657-70-4		1%	0.0%	0.0%	10%	0.50	3.5
										Methylcyclohexane	108-87-2		5%	0.0%	0.0%	10%	2.49	17.3
										Methyl Ethyl Ketone	78-93-3		40%	0.0%	0.0%	10%	19.91	138.3
										Naphtha	64742-89-8		5%	0.0%	0.0%	10%	2.49	17.3
										Naphtha (V.M. & P.)	8032-32-4		30%	0.0%	0.0%	10%	14.93	103.7
										Toluene	108-88-3		30%	0.0%	0.0%	10%	14.93	103.7
DTL10 Lacquer Thinner PPG	15	1560	0.80	100	10408	0.00%	100.0%	4.68	260	Acetone	67-64-1	10%	30%	0.0%	0.0%	10%	3.00	312.2
										i-Hexane	107-83-5		5%	0.0%	0.0%	10%	0.50	52.0
										n-Hexane	110-54-3		7%	0.0%	0.0%	10%	0.70	72.9
										Isopropyl Alcohol	67-63-0		30%	0.0%	0.0%	10%	3.00	312.2
										1-Methoxy 2-Propyl Acetate	108-65-6		5%	0.0%	0.0%	10%	0.50	52.0
										3-Methylpentane	96-14-0		5%	0.0%	0.0%	10%	0.50	52.0
										Naphtha	64742-89-8		5%	0.0%	0.0%	10%	0.50	52.0
										Toluene	108-88-3		70%	0.0%	0.0%	10%	7.01	728.6
DTR600 DTR602 Reducers PPG	108	2306	0.812	731	15618	0.00%	100.00%	7.03	260	Acetone	67-64-1	10%	40%	0.0%	0.0%	10%	29.20	624.7
										Aromatic Hydrocarbon	64742-94-5		13%	0.0%	0.0%	10%	9.51	203.0
										n-Butyl Acetate	123-86-4		30%	0.0%	0.0%	10%	7.31	156.2
										n-Heptane	142-82-5		13%	0.0%	0.0%	10%	9.51	203.0
										i-Hexane	107-83-5		7%	0.0%	0.0%	10%	5.12	109.3
										n-Hexane	110-54-3		10%	0.0%	0.0%	10%	7.31	156.2
										Methylcyclohexane	108-87-2		13%	0.0%	0.0%	10%	9.51	203.0
										3-Methylpentane	96-14-0		7%	0.0%	0.0%	10%	5.12	109.3
										Naphtha	64742-89-8		30%	0.0%	0.0%	10%	21.94	468.5
										Naphtha (Aromatic)	64742-95-6		7%	0.0%	0.0%	10%	5.12	109.3
										Naphthalene	91-20-3		1.5%	0.0%	0.0%	10%	1.10	23.4
										1,2,4-Trimethyl Benzene	95-63-6		5%	0.0%	0.0%	10%	3.66	78.1
										Toluene	108-88-3		30%	0.0%	0.0%	10%	21.94	468.5
										Xylenes	1330-20-7		1.0%	0.0%	0.0%	10%	0.73	15.6
DXR80 Ultra Urethane Hardener PPG	18	384	1.110	167	3558	83.39%	16.61%	0.30	260	n-Butyl Acetate	123-86-4		5%	0.0%	0.0%	10%	0.83	17.8
										Hexamethylene Diisocyanate*	822-06-0		0.17%	85.0%	0.0%	10%	0.004	0.1
										Hexane-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	98.0%	0%	0.00	0.0
										1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	0.0%	10%	1.67	35.6
										2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	10%	0.17	3.6
										Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	10%	0.83	17.8
										1,2,4-Trimethyl Benzene	95-63-6		1.5%	0.0%	0.0%	10%	0.25	5.3
										Xylene	1330-20-7		1.0%	0.0%	0.0%	10%	0.17	3.6
ESH200 Single Stage Hardener PPG	17	1667	1.142	161	15074	89.03%	10.97%	0.87	260	Hexamethylene Diisocyanate	822-06-0		0.18%	85.0%	0.0%	10%	0.00	0.4
										Hexane-1,6-Diisocyanate Polymer	28182-81-2		100%	50.0%	98.0%	0%	0.00	0.0
ES559000 Black Acrylic Polyester PPG	66	9000	0.971	547	72863	54.91%	45.09%	12.79	260	Acetone	67-64-1	10%	30%	0.0%	0.0%	10%	16.40	2186.5
										n-Butyl Acetate	123-86-4		13%	0.0%	0.0%	10%	7.11	947.5
										Carbon Black	1333-86-4		1.5%	50.0%	98.0%	0%	0.00	0.0
										1-Methoxy 2-Propyl Acetate	108-65-6		7%	0.0%	0.0%	10%	3.83	510.2
										2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	10%	0.55	72.9
										Methyl n-Amyl Ketone	110-43-0		10%	0.0%	0.0%	10%	5.47	728.8
ESS590653 White Acrylic Polyester PPG	34	1000	1.277	359	10650	69.70%	30.30%	1.40	260	Acetone	67-64-1	3%	7%	0.0%	0.0%	10%	2.52	74.6
										Barium Sulfate	7727-43-7		5.0%	50.0%	98.0%	0%	0.00	0.0
										n-Butyl Acetate	123-86-4		7%	0.0%	0.0%	10%	2.52	74.6
										1-Methoxy 2-Propyl Acetate	108-65-6		10%	0.0%	0.0%	10%	3.59	106.5
										2-Methoxy 2-Propyl Acetate	70657-70-4		1.0%	0.0%	0.0%	10%	0.36	10.7
										Methyl n-Amyl Ketone	110-43-0		5%	0.0%	0.0%	10%	1.80	53.3
										Naphtha (Aromatic)	64742-95-6		5%	0.0%	0.0%	10%	1.80	53.3
										Parachlorobenzotrifluoride	98-56-6	1%	5%	0.0%	0.0%	10%	1.80	53.3
										Titanium Dioxide	13463-67-7		30%	50.0%	98.0%	0%	0.00	0.0
										Xylenes	1330-20-7		1.0%	0.0%	0.0%	10%	0.36	10.7
ESX510 Standard Activator PPG	17	1667	1.145	161	15916	0.29%	99.71%	4.19	260	Zinc Sulfide	1314-98-3		5%	50.0%	98.0%	0%	0.00	0.0
										Acetone	67-64-1	7%	13%	0.0%	0.0%	10%	2.09	209.9
										Acetylacetone	123-54-6		30%	0.0%	0.0%	10%	4.83	477.5
										Parachlorobenzotrifluoride	98-56-6	40%	70%	0.0%	0.0%	10%	11.28	1114.1

Toxic Air Pollutants - Dry Room Exhaust	TAP Type (24 hr or Annual Averaging)	Allowable Ambient Conc. (AAC, mg/m3)	Total Controlled Emissions (lb/hr)[6]	Maximum Impact at 1 lb/hr Emissions (mg/m3)[7]	Persistence Factor	Dry Room Impact (mg/m3)
Acetone	585 (24 hr)	89	2.22	0.2009	0.4	0.1810
2-Butoxy Ethanol	585 (24 hr)	6	0.66		0.4	0.0666
n-Butyl Acetate	585 (24 hr)	35.5	0.74		0.4	0.0604
Calcium Carbonate	585 (24 hr)	0.5	0.0E+00		0.4	0.0000
Carbon Black	585 (24 hr)	0.175	0.0E+00		0.4	0.0000
Ethyl Benzene	585 (24 hr)	21.75	0.42		0.4	0.0339
n-Heptane	585 (24 hr)	82	0.50		0.4	0.0408
Hexamethylene diisocyanate	585 (24 hr)	0.0015	0.00035		0.4	0.0000
n-Hexane	585 (24 hr)	9	0.33		0.4	0.0272
Isopropyl Alcohol	585 (24 hr)	49	0.32		0.4	0.0259
1-Methoxy 2-Propyl Acetate	585 (24 hr)	3.6	1.62		0.4	0.0853
Methyl n-Amyl Ketone	585 (24 hr)	11.75	1.39		0.4	0.1134
Methylcyclohexane	585 (24 hr)	80.5	0.50		0.4	0.0408
MEK	585 (24 hr)	29.5	1.16		0.4	0.0948
MIBK	585 (24 hr)	10.25	0.58		0.4	0.0476
Naphtha (Stoddard Solvent)	585 (24 hr)	26.25	3.92		0.4	0.3198
Naphthalene	585 (24 hr)	2.5	0.05		0.4	0.0037
Parachlorobenzotrifluoride[8]	585 (24 hr)	0.253	0.54		0.4	0.0444
Propyl Alcohol	585 (24 hr)	25	0.83		0.4	0.0673
Silica- amorphous	585 (24 hr)	0.5	0.0E+00		0.4	0.0000
Silica- crystalline	585 (24 hr)	0.005	0.0E+00		0.4	0.0000
Toluene	585 (24 hr)	18.75	2.41		0.4	0.1969
1,2,4-Trimethyl Benzene	585 (24 hr)	6.15	0.77		0.4	0.0631
Xylene	585 (24 hr)	21.75	4.7		0.4	0.3872

Hazardous Air Pollutants (HAPs)	Controlled Emissions (tons/yr)
Ethyl Benzene	0.1
Hexamethylene diisocyanate	0.00026
n-Hexane	0.3
MEK	0.2
MIBK	0.1
Naphthalene	0.01
Toluene	0.6
Xylene	1.2
Total	2.7

Criteria Pollutants	Controlled Emissions (lb/hr)	Controlled Emissions (tons/yr)
$PM_{2.5}$ (Note 7)	0.0	0.0
VOC	19.5	5.9

Note 1: See Tables A-1b, A-2b, A-3b for permit limit bases.
Note 2: All coating volatile content counted as VOC except for acetone and parachlorobenzotrifluoride.
Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system. For the non-volatile constituents in these calculations, 50% coating retention was assumed.
Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate is 0.17% in the DXR hardener, 0.18% in the ESH hardener, and 85-95% is chemically reduced and retained in the coating upon mixing with topcoat prior to spraying.
Note 5: Based on ScreenS modeling.
Note 6: No EL available for PCBTF. AAC for PCBTF provided by IDEQ.
Note 7: No spray operation in dry room. All particulate emissions assumed to exit from paint booths.
Note 8: Per spray booth supplier, 90-95% of volatiles have flashed off before sprayed parts enter the Dry Room. For these calculations, Dry Room volatile emissions assumed to be 10% of coating volatile content. Since no spraying is done in Dry Room, no particulate emissions are assumed to exhaust from the Dry Room.
Note 9: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day.

DP-LF

IDENTITY	CODE
Epoxy Primer	
Gray Green	DP 40 LF
White	DP 48 LF
Gray	DP 50 LF
Blue	DP 60 LF
Red Oxide	DP 74 LF
Black	DP 90 LF
Epoxy Primer Catalyst	DP 401 LF
Fast Epoxy Primer Catalyst	DP 402 LF

BACKGROUND

DP Epoxy Primer LF mixed 2:1 with DP 401 LF or DP 402 LF Catalyst provides an excellent corrosion-resistant Epoxy Primer. The mixed primer is lead and chrome free and has an application VOC of 4.6 #/US gal. This primer provides excellent adhesion to many types of properly prepared steel, galvanized steel, fiberglass, aluminum, and plastic fillers. DP Epoxy Primer LF may also be used as an excellent sealer and topcoated with most PPG Refinish products.

DIRECTIONS FOR USE

Preparation:

Wash the area to be painted with soap and water, then clean with DX 330 ACRYLI-CLEAN® Wax and Grease Remover or DX 380 Low VOC Cleaner.

Sand the bare metal areas completely with 80 - 180 grit abrasive. Sand old finishes with 320 - 400 grit dry by hand or machine or 600 grit wet.

Re-clean with DX 330 or DX 380.

Chemical treatment or the use of conversion coatings will improve the adhesion and performance properties of the finished system.

Prime aluminum and stainless substrate within 72 hours. Prime carbon steel immediately after cleaning.

Mixing:

DP Epoxy Primer LF	:	DP-LF Catalyst	:	DT Reducer	VOC #/US gal
2	:	1	:	-----	4.6
2	:	1	:	½	5.0
2	:	1	:	1	5.3

DP-LF Primers may be reduced as sealers with DT Reducers based on current VOC limits. Use the table above to determine the appropriate reduction.

DO NOT BLEND DP 401 LF AND DP 402 LF.

Note: Thoroughly mix both components (5 minute mechanical agitation recommended). Once mixed, allow 30 minutes induction period to obtain maximum performance properties prior to use of DP/DP 401 LF. No induction period is necessary when using DP/DP 402 LF.

Pot life: With DP 401 LF - 72 hours at 70°F (21°C)
With DP 402 LF - 8 hours at 70°F (21°C)

Application and Dry Times:

Air pressure: 50 PSI at the gun for a conventional gun
10 PSI maximum at the cap for HVLP guns

Apply 1 - 2 medium coats to achieve 0.7 - 1.5 mils dry film build. The preferred film build over bare metal is 1.0 mil minimum.

Allow 10 - 15 minutes dry time between coats.

Dry time to topcoat:

	Catalyst	
	DP 401 LF	DP402 LF
Primer Ratio (w/o DT Reducer)	60 minutes	30 minutes
Sealer Ratio (w/ DT Reducer)	30 minutes	15 minutes

Note: If used over lacquer products, all topcoats must be applied within the same working day or lifting will occur.

DELSTAR®/DELTHANE®
Polyurethane Acrylic Enamel

Form P-137 (8/91)

DAR

IDENTITY	CODE
Acrylic Enamel Color	DAR
DELTHANE ULTRA	DXR 80
Urethane Hardener (For spot repair)	DU 4
Urethane Hardener (For spot repair)	DXR 79
Acrylic Enamel Reducers	DTR 600 (50 - 65°F) (10 - 18°C)
	DTR 601 (60 - 75°F) (16 - 24°C)
	DTR 602 (70 - 85°F) (21 - 29°C)
	DTR 604 (85°F & Above) (29°C & Above)
	DTR 607 Retarder - 25% Blend

BACKGROUND

The DELSTAR/DELTHANE (DAR/DXR 80) Polyurethane Acrylic Enamel system is designed for panel repair and overall refinishing or as a fleet finish. It resists the elements and retains excellent color and gloss. DELSTAR/DELTHANE provides you the same texture, color, and depth of gloss as an original new car finish.

An additional Hardener, DU 4 or DXR 79 Hardener is available and recommended for spot repair. DU 4 Hardener or DXR 79 Hardener helps minimize overspray and gives a faster dry.

DIRECTIONS FOR USE

Preparation:

- Wash affected areas that will be topcoated with soap and water, then reclean with DX 330 ACRYLI-CLEAN® Wax and Grease Remover or DX 380 Low VOC Cleaner.
- Treat all bare metal surfaces with the appropriate PPG metal treatment systems.
- Prime bare metal areas, with DP Epoxy Primers.
- Fill minor imperfections with one of the following recommended Primer Surfacers:

KONDAR® Acrylic Primer Surfacer
DZL Primer Surfacers
K 200/201 Acrylic Urethane Primer Surfacer
K 36 PRIMA™ Acrylic Urethane Primer Surfacer

- Final sand the repair with : Machine/DA 280 grit or finer
  Hand sand dry 320 grit or finer
  Hand sand wet 400 grit or finer

- Reclean with #DX 220, DX 330, or DX 380 and tack wipe

Not currently available in Canada.

Note: The use of a primer-sealer will strengthen any paint system. PPG recommends the following Primer Sealers be used over the repair area:

DP Epoxy Primer reduced as a sealer
DAS DEL-SEAL® Acrylic Sealers
DPE 656, 1202, 1338, Primer Sealers

Mixing:

Reduce DELSTAR (DAR) with the DTR Reducer best suited for shop conditions and add DELTHANE (DXR 80) Hardener using the following ratio:

DAR Color		DTR Reducer		DXR 80
8 parts		6 parts		1 part
or	to	or	to	or
8 pints		6 pints		1 pint

Note: Pot life of DAR/DXR 80 is 8 hours at 70°F (21°C).

Cautions:

- DELTHANE ULTRA (DXR 80), DU 4 or DXR 79 Hardener will react with atmospheric moisture. After pouring the quantity needed be sure to immediately wipe off the screw threads and replace the cap of the hardener container to avoid congealing. We recommend using the remainder of the hardener within 7 days after opening for best results.

- Hot spraying is not recommended when hardener is used because the heat stimulates chemical reactions and causes rapid gelling.

Application and Dry Times:

- Set air pressure for 55 - 60 PSI at the gun when using a siphon feed gun.
- Apply 2 - 3 full wet coats. Film build per coat is 1.2 mils.
- Allow 15 - 20 minutes dry time between coats.

Delfleet® Essential

When Value Is Essential.

DFE-20

Single Stage Polyurethane Enamel

ESSS

ESSS Single Stage Polyurethane Enamel is a two-component product designed to offer good gloss with a wide array of solid and metallic colors. It is available as a 2.8 VOC topcoat and can be used over all properly prepared OEM finishes, cured air-dried finishes, as well as any Delfleet® Essential Primer.

Products

• Essential Color	ESSS
• Hardener	ESH200
• Fast Activator	ESX500
• Standard Activator	ESX510
• Slow Activator	ESX520
• Very Slow Activator	ESX530

Compatible Surfaces

ESSS may be applied over:

- Properly cleaned and sanded OEM enamels and cured finishes
- ESU400
- ESU410
- ESU420/ESU421
- ESU430

When sanding prior to the application of ESSS topcoat, use 220 - 320 grit wet or dry.

Selection Of Substrate Cleaner

Code	Product	Purpose
DX436	Wax & Grease Remover	Suitable for removing dirt, grease or other contaminants before or during the painting process.
DX437	Heavy Duty Wax & Grease Remover	Used to remove heavy milling oils and grease from bare substrates prior to the painting process.
DX438	Compliant Cleaner	For use removing dirt, grease and other contaminants in VOC regulated areas.

PPG

Application Guide

Mixing Ratio:

6 ESSS
1 ESH200
1 ESX500/510/520/530

Spray Viscosity:

#2 Zahn Cup
20-30 seconds

Pot Life:

2 hours
at 70°F (21°C) / 50% RH
(High heat and humidity
will shorten pot life)

Spray Gun Setup:

	HVLP	Conventional
Fluid Tip	1.3 - 1.7 mm	1.3 - 1.7 mm
Air Pressure	8 - 10 PSI at the cap	50 - 60 PSI

Pressure Pot Setup:

HVLP	Conventional
1.0 - 1.4 mm with 8 - 12 fluid ounces per minute	1.0 - 1.4 mm with 8 - 12 fluid ounces per minute

Number of Coats:

Two coats with 10 minute flash between coats.

Flash Off:

5 - 10 minutes
(21°C) before stoving

Dry Times:

Dust-free	30 - 60 minutes
Tape Time	2 - 4 hours at 68°F (20°C) 30 minutes at 140°F (60°C)
Overcoat/Recoat	72 hours at 70°F (21°C)

Total Film Build:

	Wet	Dry
Minimum	2.0 - 4.0 mils per coat	2.0 - 4.0 mils total DFT

Performance Comments:

Wash and Etch primers must be sealed before applying topcoat for optimum performance.

Theoretical Coverage:

765 - 860 sq. ft. (Color formula dependent)

Theoretical coverage in sq. ft./U.S. gal.
Ready-to-spray (RTS), giving 1 mil.
(25µm) dry film thickness
(Assuming 100% Transfer Efficiency)

Physical Characteristics:

VOC (Packaged): ESSS	2.81 lbs./gal. (Maximum)
VOC (RTS)	2.80 lbs./gal.
Total Solids By Weight (RTS)	53.0% - 65.0%
Total Solids By Volume (RTS)	47.0% - 53.0%

Health and Safety:

Please refer to Material Safety Data Sheets (MSDS) for full health safety details and storage regulations.

Emergency Medical or Spill Control Information (412) 434-4515; In Canada (514) 645-1320
Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to PPG Industries. Procedures for applications mentioned are suggestions only and not to be construed as representations or warranties as to performance, results, or fittness for any intended use, nor does PPG Industries warrant freedom from patent infringement in the use of any formula or process set forth herein.

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MIKE KOSS
MANAGER, REGULATORY AFFAIRS
AUTOMOTIVE,FLEET, & LIGHT INDUSTRIAL FINISHES

October 17, 2006

To: Sarah Stine, P.E. / TORF Environmental Management / 208.571.2393 FAX: 208.345.8285
Subject: C & B Trailers

Dear Sarah,

In regards to your inquiry concerning the concentrations of particular materials contained in one of the coatings products used in spray painting operations, and supplied by PPG Ind., the following comments, observations, calculations, and conclusions can be made:

1. The material in question, hexamethylene diisocyanate - CAS# 822-06-0, is a very small concentration component of the **DELTHANE** ® Catalyst, **DXR80**. Our MSD Sheet Reports this material at the weight concentration of 0.1 to <1%. By law, this is the lowest concentration of hazardous materials that we may report. Actually, the resinous material containing this item is only 83.4% by weight of the **DXR80** product. The supplier reports the concentrations of HMDI in the 100% solids resin utilized in the formula as 0.2% maximum. Therefore, the MSDS reported maximum concentration is 5 to 6 times higher than actual.

2. **DXR80** is not a singly applied coating product, but one component of a high solids two pack reactive polyurethane topcoat system. Each volume of **DXR80** used is blended with 8 volumes of topcoat color and 3 volumes of reducer prior to spray application to the parts to be painted, further diluting the concentration of all materials contained there-in. Once blended, the acrylic polyol portion begins reacting with the HMDI adduct resins and the very reactive, low concentration HMDI material itself, further reducing the potential available concentration.

3. Other factors reducing the emission concentration levels are the actual amount of material applied to and remaining on the part painted, approximately 50% of that atomized during spray application, materials captured and held in resin-bound particulate over-spray, the over-spray it self captured in the booth filtration system (min.95% efficient) and that portion of any remaining reactive material free to react with the ambient moisture in the atmosphere.

Please contact me directly or FAX / e-mail any additional questions or comments regarding this or other products.

Sincerely,

Michael W Koss

PPG INDUSTRIES

Automotive and Fleet Finishes
3800 West 143 rd Street, Cleveland, OH 44111
216 671-0050 Fax 216 671-7691
E-Mail: mkoss@ppg.com

MIKE KOSS
MANAGER, REGULATORY AFFAIRS
AUTOMOTIVE,FLEET, & LIGHT INDUSTRIAL FINISHES

November 8, 2006

To: Sarah Stine, P.E. / TORF Environmental Management / 208.571.2393 FAX: 208.345.8285
Subject: C & B Trailers

Dear Sarah,

In regards to your inquiry concerning the concentrations of particular materials contained in one of the coatings products used in spray painting operations, and supplied by PPG Ind., the following comments, observations, calculations, and conclusions can be made:

1. The material in question, hexamethylene diisocyanate - CAS# 822-06-0, is a very small concentration component of the **Delfleet** ™ **Essential** Hardener, **ESH200**. Our MSD Sheet Reports this material at the weight concentration of 0.1 to <1%. By law, this is the lowest concentration of hazardous materials that we may report. Actually, the resinous material containing this item is only 89.0% by weight of the **ESH200** product. The supplier reports the concentrations of HMDI in the 100% solids resin utilized in the formula as 0.2% maximum. Therefore, the MSDS reported maximum concentration is 5 to 6 times higher than actual, which calculates as 0.18% of **ESH200**.

2. **ESH200** is not a singly applied coating product, but one component of a high solids two pack reactive polyurethane topcoat system. Each volume of **ESH200** used is blended with 6 volumes of topcoat color and 1 volume of activator prior to spray application to the parts to be painted, further diluting the concentration of all materials contained there-in. Once blended, the acrylic polyol portion begins reacting with the HMDI adduct resins and the very reactive, low concentration HMDI material itself, further reducing the potential available concentration.

3. Other factors reducing the emission concentration levels are the actual amount of material applied to and remaining on the part painted, approximately 50% of that atomized during spray application, materials captured and held in resin-bound particulate over-spray, the over-spray it self captured in the booth filtration system (min.95% efficient) and that portion of any remaining reactive material free to react with the ambient moisture in the atmosphere.

Please contact me directly or FAX / e-mail any additional questions or comments regarding this or other products.

Sincerely,

Michael W Koss

From: "Koss, Mike" <mkoss@ppg.com>
Subject: RE: Verifying material approval
Date: Fri, January 12, 2007 11:33 am
To: "Sarah Stine" <slstine@torf.us>

Sarah, I reviewed my predecessor Ron Hilovsky's statement in section 2. of his letter stating that "Once blended, the acrylic portion begins reacting with the HMDI adduct resin and the very reactive, low concentration HMDI material itself, further reducing the potential available potential concentration by 85 to 90%." To date, I have seen no evidence to dispute Ron's statement and would expect a consistent rate of reaction in the refinish two pack urethane systems that you are evaluating.

-Mike

-----Original Message-----
From: Sarah Stine [mailto:slstine@torf.us]
Sent: Friday, January 12, 2007 11:02 AM
To: Moll, Jeff R.
Cc: Koss, Mike; Rebecca Gordon
Subject: Re: Verifying material approval

Jeff-
Good to hear about the Essential test. Thanks for sending the equipment info. When I have specific gun model, tip, etc. details for the two booths from Snake River, I can do the final emission estimations. However, at this point the Essential line looks good. We have preliminary approval from IDEQ to use the PCBTF based on the rates looked at so far.

I do need one more thing from PPG. Mike Koss sent me letters regarding the HMDI concentrations in DXR80 and ESH200. I am hoping I can get a more specific extent of reaction between the HMDI and the acrylic polyol. I can't take that credit unless I have an actual number from the manufacturer. See the attached for more details. (I am writing the permit to allow for either topcoat, to maximize flexibility.)

Thank you (and Mike) for your help,
Sarah

Sarah Stine, P.E.
slstine@torf.us
208.571.2393 FAX: 208.345.8285

TORF Environmental Management
www.torf.us

On Mon, January 8, 2007 10:20 pm, Moll, Jeff R. wrote:
> Sarah,
>
> This past week we successfully demonstrated PPG Delfleet Essential product, utilizing an electrostatic spray system. As you may recall, the
> Essential is the product which contained the PCTF chemical which the DEQ had taken issue with. However, if I recall correctly we had resolved this
> issue with the DEQ and the electrostatic spray system was also supported by the DEQ. Am I correct? And, would see any issues form the regulatory
> side if C&B/Snake River were to move to the Essential product, applied with an electrostatic spray system. We would like to move forward with this new system, but want to make sure there are no issues. I have attached the product data sheet for the Essential and the MSDS, as well

as
> some information on the electrostatic system C&B is evaluating.
> If you have any questions feel free to give me a call on my cell number
below.
>
> Thanks again,
>
> Jeff Moll
> Cell # 801-554-4943
> Commercial Territory Manager
> PPG Industries, Inc.
>
>
>
> <<ESSS P_Sheet DFE20.pdf>> <<MSDS ESSS9000.pdf>>
>
> <<Manual_Estat.pdf>>
>

Download this as a file

6. PLOT PLAN – FORM PP DOCUMENTATION

6.1 Facility Boundary

The Kit Avenue facility is surrounded by a chain-link fence, six feet tall and topped with barbed wire. Access is through a sliding gate at the east side of the property.

6.2 Building Dimensions

Building B is the only building with emission sources. Building B has a low pitch, center-peaked roof with a maximum height of 30 feet. Buildings A and C may be considered multi=tier because of small additions of lower height that have been attached to the buildings. The building dimensions (in feet) are provided below:

Building A

Tier No.1 Height: 20	Tier No.1 Length: 103	Tier No. 1 Width: 135
Tier No.2 Height: 15	Tier No.2 Length: 32	Tier No. 2 Width: 34
Tier No.3 Height: 10	Tier No.3 Length: 60	Tier No. 3 Width: 20
Tier No.4 Height: 10	Tier No.4 Length: 24	Tier No. 4 Width: 30

Building B

Tier No.1 Height: 30	Tier No.1 Length: 190	Tier No. 1 Width: 65-90

Building C

Tier No.1 Height: 30	Tier No.1 Length: 195	Tier No. 1 Width: 100
Tier No.2 Height: 10	Tier No.2 Length: 25	Tier No. 2 Width: 23

Building D

Tier No.1 Height: 20	Tier No.1 Length: 25	Tier No. 1 Width: 40

7. MODELING INFORMATION WORKBOOK - FORM MI1-MI4 DOCUMENTATION

7.1 Model Used

Screening modeling was performed using SCREEN3, the United States Environmental Protection Agency (USEPA)- approved screening model for simple air pollution sources. The SCREEN3 model, applicable and very conservative for this analysis, was the model IDEQ chose to use in analyzing criteria pollutant and TAP impacts from the very similar Chicago Street facility. IDEQ recommended the use of SCREEN3, and provided draft modeling analyses (R. Hardy, November 2006) refined by the applicant.

7.2 Criteria Pollutant Modeling Methodology

A normalized emission rate rate of 1 lb/hr was used for the emission source. Actual predicted impacts for each pollutant are calculated by multiplying the model predicted impact from 1 lb/hr emissions by the estimated actual emission rate, then applying persistence factors recommended in IDEQ's Air Quality Modeling Guidelines. Background concentrations used were provided by IDEQ.[11]

7.3 TAPs Modeling Methodology

A normalized emission rate of 1 lb/hr is was used for the emission source. Actual predicted impacts for each pollutant are calculated by multiplying the model predicted impact from 1 lb/hr emissions by the estimated actual emission rate, then applying persistence factors recommended in IDEQ's Air Quality Modeling Guidelines. For non-carcinogenic TAPs, a persistence factor of 0.4 is used. For carcinogenic TAPs, a persistence factor of 0.125 is used.

7.4 Meteorological Data, Receptor Network

For the SCREEN3 modeling, flat terrain and rural dispersion coefficients (consistent with most Idaho applications) are assumed. The full meteorological data array is utilized. Receptors are placed from 1 meter to 10,000 meters via the SCREEN3 automated receptor array. SCREEN3 solved for the maximum impact within that receptor range.

7.5 Emissions Release Parameters

While there are six emission points at the Kit Avenue facility, the large majority of pollutants are emitted during coating application from the four stacks located on the two spray booths. Each booth is equipped with two identical stacks, located 14 feet apart, on opposite booth walls. The two sets of stacks are 34 feet apart. Typically the first spray booth will be used for

[11] Project Correspondence, Darrin Mehr, IDEQ, to Sarah Stine, TORF Environmental Management, *Re: Modeling Protocol for the Snake River Trailers Facility Located in Caldwell, Idaho*, February 23, 2007.

primer application and the second booth will be used for topcoat application. However, it is possible this could be switched or both booths could be used for a single purpose, depending on production needs. All emission points are at least 150 feet from the nearest fence line (see Plot Plan).

Given the close proximity of the four stacks and their identical configuration, they are effectively collocated as compared to the distance to potential receptors. Therefore, all emissions from the spray booths are considered for the SCREEN3 analysis to come from one stack (BOOTH). This includes the combustion emissions from the two spray booth inlet air heaters.

The emissions from the 180,000 Btu/hr Dry Room heater are released from a 12" vent approximately 20 feet from the Booth 2 exhaust stacks. The duty and, therefore, emissions from the Dry Room heater are less than 5% of the booths' air heaters. Because of the minimal impact of this unit, the Dry Room Heater emissions are included in the BOOTH emissions.

The BOOTH SCREEN3 model source data are as follows:
Stack Height = 36 feet (10.97 m)
Temperature = 70°F (293 K)
Exit Velocity = 31.72 ft/s (9.67 m/s)
Stack Diameter = 34" (0.867 m)

While the outlet air temperature can be increased to 140°F for curing operations, during spray operations the air temperature will be 70°F. The lower temperature is conservatively used for the SCREEN3 input. The exit velocity is based on 12,000 CFM blower rate. The stack outlets are equipped with a hinged flap that opens completely when the booth blower is on. Since the blower is always on during spraying and curing operations, the outlet flow can be considered unrestricted.

The sixth emission point at the Kit Avenue facility is the Dry Room exhaust. Any volatiles released during the final curing step will be exhausted from this stack. The stack is 12" in diameter.

The DRYROOM SCREEN3 model source data are as follows:
Stack Height = 36 feet (10.97 m)
Temperature = 120°F (322 K)
Exit Velocity = 25.45 ft/s (7.76 m/s)
Stack Diameter = 12" (0.305 m)

Depending on the coating, curing temperatures can range from 120-140°F. An outlet temperature of 120°F, the lower end of the curing cycle temperature range, is used for air dispersion modeling. The velocity is based on the exhaust fan rate of 1200 CFM. The fan is rated at 1400 CFM by the Dry Room manufacturer (see Form EUO Documentation).

7.6 Elevation Data

For the SCREEN3 modeling, flat terrain and rural dispersion coefficients (consistent with most Idaho applications) are assumed.

There are three large buildings at the facility (see Plot Plan). The building roofs are either flat or with a very shallow pitch. The spray booths are located in the 30′ high center building, Building B. The building to the west (Building C) is 30′ tall, and the building to the east (Building A) is 20′ tall. See Form PP Documentation for building dimension details.

Two SCREEN3 preliminary analysis runs were made. The first used Building B dimensions to establish the minimum and maximum horizontal building dimensions. The second preliminary SCREEN3 run used the combined footprint of Buildings A, B and C to establish the minimum and maximum horizontal building dimensions. The estimated emission impacts were the same in both cases, with the maximum impact found at 90 meters. The modeling runs output were attached in the previously submitted and IDEQ-reviewed Modeling Protocol[12].

7.7 Impact Analysis

SCREEN3 analyses runs were made for the two point sources: BOOTH and DRYROOM. The output files are attached. At 1 lb/hr of normalized emissions, the respective maximum impacts were 0.0946 and 0.204 mg/m^3. These results are adjusted for the actual emissions rates in Table 5-6 for the Booth emissions and in Table 5-7 for the Dry Room emissions.

The impacts from both sources are summarized and compared to the relevant regulatory standards in Table 7-1. The facility-wide criteria impacts, including background concentrations, for NO_x and PM_{10} are well within NAAQS standards. All TAP ambient air concentrations are less than their respective AACs. These TAP results for the volatile components are conservative (maximize impacts) because the 10% of coating volatiles that are assumed to be emitted from the Dry Room are not deducted from the Booth emissions.

7.8 Modeling Protocol Approval Letter Response

A Modeling Protocol for this application was submitted to IDEQ on February 13, 2007. A response to the Modeling Protocol was issued by IDEQ (Darrin Mehr) on February 23, 2007.[13] The comments listed in the February 23rd response have been addressed as detailed below:

<u>Comment 1</u>: *Include air dispersion modeling of Dry Room emissions*

---

[12] Sarah Stine, TORF Environmental Management, *Air Quality PTC Modeling Protocol*, February 13, 2007.
[13] Project Correspondence (letter), Darrin Mehr, Idaho DEQ, to Sarah Stine, TORF Environmental Management, *Re: Modeling Protocol for the Snake River Trailers Facility Located in Caldwell, Idaho*, February 23, 2007.

Based on input from the equipment supplier (see Form EU3 Documentation), maximum estimated Dry Room exhaust emissions were calculated (see Table 5-7). These emissions represent the coating volatiles that may not evaporate in the spray booths.

These volatiles are primarily released during a 15 minute curing cycle, during which the Dry Room is heated to 120-140°F. The Dry Room exhaust is a 12" diameter roof stack. This emission point is shown on the Plot Plan as EP6: DRYROOM. SCREEN3 was used to model the emissions. The lower curing temperature of 120°F was used. The exit velocity was calculated consistent with the actual flow rate of 1200 CFM. The SCREEN3 output report is attached and the results are detailed in Section 7.7.

The Dry Room is heated with a 180,000 Btu/hr, indirect, natural gas-fired heater. The Dry Room Heater combustion gases exhaust through a vertical vent shown as EP5: DRYHTR on the Plot Plan. Because of the relatively small size of this heater (<5% of the other combustion units) and its vertical orientation near the other vertical, Building B paint booth emission sources (EP1-4), the emissions from this unit were included with the Booth emissions.

Comment 2: *Show how stack temperatures and flowrates were calculated*

The DRYROOM source parameters are listed in Comment 1, above.

Each paint booth is equipped with two exhaust stacks (4 total). Each 34" diameter, vertically-oriented stack is equipped with a 12,000 CFM exhaust fan. When spraying operations are occurring, which represents the period of maximum pollutant emissions, the fans will be operating and the room temperature will be controlled at 70°F, for operator comfort. For the SCREEN3 modeling, the four exhaust stacks were modeled as one 34" vent, with all emissions from both booths exhausting from the representative vent. An exit velocity of 32 feet per second was used (12000 CFM, 34" Diameter opening) at 70°F.

Comment 3: *Include worst-case, 24-hour PM_{10} and TAPs scenarios in emission calculations*

This is described in the previous sections detailing the permit limits (Form EU3 documentation) and emission calculations (Form EI documentation).

Snake River will have two spray guns in operation. Typically, one gun (Booth 1) will be used for primer and one gun (Booth 2) will be used for topcoat. However, 24-hour TAP emissions were calculated assuming both guns could be spraying only primer or topcoat mix during a 24-hour period. Where continuous, two-gun, emissions exceed ambient concentration limits, daily permit limits are proposed.

For particulate matter, 24-hour PM_{10} emissions were calculated assuming the two guns would be spraying the highest solids content coating. As long as booth filters are installed, permit limits are not required to keep PM_{10} emissions below regulatory levels.

Where combined impacts from both emissions sources were predicted, they were very conservatively calculated as the sum of the maximum impacts at any distance from each modeled emission sources.

Comment 4: *Justify ambient air boundary*

The Kit Avenue facility is surrounded by a 6 feet tall, chain-link fence topped with barbed wire. Access to the site is through two, sliding gates located at the east end of the property, in front of the office building and reception area. Additionally, the area is in an industrial park setting, with no residential areas within view.

Per the State of Idaho Modeling Guideline, in this situation the facility is assumed to be controlled public access effectively precluded, and the ambient air boundary can be set at the fence line.[14] As shown on the Plot Plan, the fenceline is at least 150 feet (45 meters) from any emission source.

Comment 5: *Set ground receptor heights at zero, instead of 1.5 meters*

Ground receptor heights are set at zero and the new SCREEN3 outputs are attached.

Comment 6: *Use the provided background concentrations*

Background concentrations provided by IDEQ are used and the resulting impact analysis is provided in Table A-7.

Comment 7: *AERMOD can be used instead of SCREEN3*

The conservative results of SCREEN3 demonstrate compliance for this facility. Therefore, AERMOD is not necessary.

Comment 8: *Include all modeling files with the final modeling report*

The modeling files are attached.

[14] IDEQ, State of Idaho Air Quality Modeling Guideline, December 2002, page 23.

Table 7-1: Ambient Impact Analysis for Criteria and TAP Air Pollutants

Kit Avenue Criteria Pollutants - Facility Total	Averaging Period	NAAQS Standard (ug/m3)	Booth Emissions Maximum Impact (ug/m3)	Dry Room Emissions Maximum Impact (ug/m3)	Combined Ambient Conc. (ug/3)	Background Conc. (ug/m3)	Maximum Ambient Conc. (ug/m3)	Maximum Ambient Conc. (% of NAAQS)
NO_x	Annual	100	4.156		4.156	32	36.2	36.2%
PM_{10}	24-hr	150	36.34		36.34	81	117.3	78.2%
	Annual	50	1.516		1.516	27	28.5	57.0%

Kit Avenue Toxic Air Pollutants - Facility Total	TAP Type (24 hr or Annual Averaging)	Allowable Ambient Conc. (AAC, mg/m3)	Booth Emissions Maximum Impact (mg/m3)[1]	Dry Room Emissions Maximum Impact (mg/m3)[2]	Combined Maximum Ambient Conc. (mg/m3)[3]	Combined Maximum Ambient Conc. (% of AAC)[3]
Acetone	585 (24 hr)	89	0.839	0.181	1.020	1.15%
Arsenic	586 (Annual)	0.00023	1.38E-08		1.38E-08	0.01%
Barium	585 (24 hr)	0.025	9.73E-07		9.73E-07	0.00%
Benzene	586 (Annual)	0.12	1.45E-07		1.45E-07	0.00%
2-Butoxy Ethanol	585 (24 hr)	6	0.262	0.057	0.319	5.32%
n-Butyl Acetate	585 (24 hr)	35.5	0.280	0.060	0.340	0.96%
Cadmium	586 (Annual)	0.00056	7.60E-08		7.60E-08	0.01%
Calcium Carbonate	585 (24 hr)	0.5	0.0293	0.000	0.0293	5.85%
Carbon Black	585 (24 hr)	0.175	0.00495	0.000	0.0050	2.83%
Chromium	585 (24 hr)	0.025	3.10E-07		3.10E-07	0.00%
Cobalt	585 (24 hr)	0.0025	1.86E-08		1.86E-08	0.00%
Copper	585 (24 hr)	0.05	1.88E-07		1.88E-07	0.00%
Dichlorobenzene	585 (24 hr)	15	2.65E-07		2.65E-07	0.00%
Ethyl Benzene	585 (24 hr)	21.75	0.157	0.034	0.191	0.88%
Formaldehyde	586 (Annual)	0.077	5.18E-06		5.18E-06	0.01%
n-Heptane	585 (24 hr)	82	0.1891	0.041	0.230	0.28%
Hexamethylene diisocyanate	585 (24 hr)	0.0015	0.00013	0.00003	0.00016	10.87%
n-Hexane	585 (24 hr)	9	0.127	0.027	0.154	1.71%
Isopropyl Alcohol	585 (24 hr)	49	0.120	0.026	0.146	0.30%
Manganese	585 (24 hr)	0.025	8.40E-08		8.40E-08	0.00%
Mercury	585 (24 hr)	0.0005	5.75E-08		5.75E-08	0.01%
1-Methoxy 2-Propyl Acetate	585 (24 hr)	3.6	0.386	0.083	0.470	13.0%
Methyl n-Amyl Ketone	585 (24 hr)	11.75	0.526	0.113	0.639	5.44%
Methylcyclohexane	585 (24 hr)	80.5	0.189	0.041	0.230	0.29%
MEK	585 (24 hr)	29.5	0.439	0.095	0.534	1.81%
MIBK	585 (24 hr)	10.25	0.222	0.048	0.269	2.63%
Molybdenum	585 (24 hr)	0.25	2.43E-07		2.43E-07	0.00%
Naphtha (Stoddard Solvent)	585 (24 hr)	26.25	1.483	0.320	1.803	6.87%
Naphthalene	585 (24 hr)	2.5	0.017	0.004	0.021	0.84%
Nickel	586 (Annual)	0.0042	1.45E-07		1.45E-07	0.00%
Parachlorobenzotrifluoride	585 (24 hr)	0.253	0.185	0.044	0.230	90.9%
Pentane	585 (24 hr)	88.5	5.75E-04		0.00057	0.00%
Propyl Alcohol	585 (24 hr)	25	0.312	0.067	0.380	1.52%
Silica- amorphous	585 (24 hr)	0.5	0.00047	0.000	0.00047	0.1%
Silica- crystalline	585 (24 hr)	0.005	0.00081	0.000	0.00081	16.2%
Toluene	585 (24 hr)	18.75	0.913	0.197	1.110	5.92%
1,2,4-Trimethyl Benzene	585 (24 hr)	6.15	0.293	0.063	0.356	5.79%
Vanadium	585 (24 hr)	0.0025	5.08E-07		5.08E-07	0.02%
Xylene	585 (24 hr)	21.75	1.796	0.387	2.183	10.0%
Zinc	585 (24 hr)	0.05	6.41E-06		6.41E-06	0.01%

Note 1: Impact from maximum possible booth emissions which is the same as total facility emissions. Includes emissions from all three natural gas-fired air heaters.

Note 2: Impact from 10% of of total facility coating volatiles exhausting from the Dry Room air vent.

Note 3: For volatiles, actual impact is less because the 10% of volatiles assumed to be emitted from the Dry Room have not been deducted from the Booth emissions.

20070306 CJ SS Model Runs Booth ATT1

03/06/07
21:29:44

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C&B Paint booths (BOOTH)


SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .126000
   STACK HEIGHT (M)       =      10.9700
   STK INSIDE DIAM (M)    =        .8635
   STK EXIT VELOCITY (M/S)=       9.6708
   STK GAS EXIT TEMP (K)  =     293.0000
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =       9.1400
   MIN HORIZ BLDG DIM (M) =      18.9000
   MAX HORIZ BLDG DIM (M) =      48.7700

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =     .000 M**4/S**3;  MOM. FLUX =   17.434 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***
```

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
30.	47.76	6	4.0	4.2	10000.0	11.45	1.33	4.30	SS
100.	89.65	6	4.0	4.2	10000.0	11.65	4.07	7.29	SS
200.	58.76	6	3.5	3.7	10000.0	12.05	7.73	8.25	SS
300.	46.05	6	3.0	3.2	10000.0	12.80	11.23	9.07	SS
400.	38.99	6	3.0	3.2	10000.0	12.80	14.64	10.34	SS
500.	32.78	6	3.0	3.2	10000.0	12.80	17.97	11.12	SS
600.	29.09	6	2.5	2.6	10000.0	14.28	21.24	11.65	SS
700.	26.08	6	2.5	2.6	10000.0	14.28	24.46	12.67	SS
800.	23.39	6	2.5	2.6	10000.0	14.28	27.63	13.65	SS
900.	21.05	6	2.5	2.6	10000.0	14.28	30.78	14.31	SS
1000.	19.30	6	2.0	2.1	10000.0	17.18	33.88	14.63	SS
1100.	17.99	6	2.0	2.1	10000.0	17.18	36.96	15.48	SS
1200.	16.77	6	2.0	2.1	10000.0	17.18	40.01	16.29	SS
1300.	15.63	6	2.0	2.1	10000.0	17.18	43.04	17.09	SS
1400.	14.59	6	2.0	2.1	10000.0	17.18	46.05	17.86	SS
1500.	13.64	6	2.0	2.1	10000.0	17.18	49.03	18.62	SS
1600.	12.77	6	2.0	2.1	10000.0	17.18	51.99	19.36	SS
1700.	12.16	6	1.0	1.1	10000.0	28.58	54.94	19.52	SS
1800.	12.00	6	1.0	1.1	10000.0	28.58	57.87	20.23	SS
1900.	11.80	6	1.0	1.1	10000.0	28.58	60.78	20.94	SS
2000.	11.56	6	1.0	1.1	10000.0	28.58	63.68	21.63	SS
2100.	11.27	6	1.0	1.1	10000.0	28.58	66.56	22.21	SS
2200.	10.97	6	1.0	1.1	10000.0	28.58	69.42	22.78	SS
2300.	10.68	6	1.0	1.1	10000.0	28.58	72.28	23.34	SS

2400.	10.38	6	1.0	1.1	10000.0	28.58	75.12	23.89	SS
2500.	10.10	6	1.0	1.1	10000.0	28.58	77.95	24.42	SS
2600.	9.815	6	1.0	1.1	10000.0	28.58	80.76	24.95	SS
2700.	9.541	6	1.0	1.1	10000.0	28.58	83.57	25.47	SS
2800.	9.276	6	1.0	1.1	10000.0	28.58	86.36	25.98	SS
2900.	9.018	6	1.0	1.1	10000.0	28.58	89.15	26.48	SS
3000.	8.769	6	1.0	1.1	10000.0	28.58	91.92	26.98	SS
3500.	7.655	6	1.0	1.1	10000.0	28.58	105.65	28.98	SS
4000.	6.751	6	1.0	1.1	10000.0	28.58	119.17	30.84	SS
4500.	6.010	6	1.0	1.1	10000.0	28.58	132.50	32.57	SS
5000.	5.396	6	1.0	1.1	10000.0	28.58	145.67	34.21	SS
5500.	4.880	6	1.0	1.1	10000.0	28.58	158.69	35.76	SS
6000.	4.444	6	1.0	1.1	10000.0	28.58	171.58	37.23	SS
6500.	4.070	6	1.0	1.1	10000.0	28.58	184.34	38.64	SS
7000.	3.747	6	1.0	1.1	10000.0	28.58	196.99	40.00	SS
7500.	3.473	6	1.0	1.1	10000.0	28.58	209.54	41.16	SS
8000.	3.232	6	1.0	1.1	10000.0	28.58	221.98	42.28	SS
8500.	3.019	6	1.0	1.1	10000.0	28.58	234.34	43.36	SS
9000.	2.830	6	1.0	1.1	10000.0	28.58	246.61	44.40	SS
9500.	2.661	6	1.0	1.1	10000.0	28.58	258.79	45.41	SS
10000.	2.509	6	1.0	1.1	10000.0	28.58	270.90	46.38	SS

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 30. M:

92.	94.55	6	4.0	4.2	10000.0	11.65	3.80	7.19	SS

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

```
****************************************
     *** REGULATORY (Default) ***
    PERFORMING CAVITY CALCULATIONS
  WITH ORIGINAL SCREEN CAVITY MODEL
          (BRODE, 1988)
****************************************
```

*** CAVITY CALCULATION - 1 ***			*** CAVITY CALCULATION - 2 ***		
CONC (UG/M**3)	=	20.77	CONC (UG/M**3)	=	.0000
CRIT WS @10M (M/S)	=	17.81	CRIT WS @10M (M/S)	=	99.99
CRIT WS @ HS (M/S)	=	18.14	CRIT WS @ HS (M/S)	=	99.99
DILUTION WS (M/S)	=	9.07	DILUTION WS (M/S)	=	99.99
CAVITY HT (M)	=	10.13	CAVITY HT (M)	=	9.14
CAVITY LENGTH (M)	=	36.57	CAVITY LENGTH (M)	=	21.80
ALONGWIND DIM (M)	=	18.90	ALONGWIND DIM (M)	=	48.77

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

```
****************************************
      END OF CAVITY CALCULATIONS
****************************************
```

```
****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	94.55	92.	0.

BLDG. CAVITY-1	20.77	37.	--	(DIST = CAVITY LENGTH)
BLDG. CAVITY-2	.0000	22.	--	(DIST = CAVITY LENGTH)

```
**************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**************************************************
```

20070306 CJ SS Model Run Dry Room ATT3

03/06/07
21:32:07

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C&B TAPs (DRYROOM)


SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .126000
   STACK HEIGHT (M)       =      10.9700
   STK INSIDE DIAM (M)    =        .3048
   STK EXIT VELOCITY (M/S)=       7.7617
   STK GAS EXIT TEMP (K)  =     322.0500
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =       9.1400
   MIN HORIZ BLDG DIM (M) =      18.9000
   MAX HORIZ BLDG DIM (M) =      48.7700

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =     .159 M**4/S**3;  MOM. FLUX =    1.273 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***
```

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
30.	190.6	6	2.5	2.6	10000.0	11.05	1.33	4.94	SS
100.	164.4	6	2.0	2.1	10000.0	12.71	4.07	7.96	SS
200.	117.7	4	1.0	1.0	320.0	12.35	15.56	9.87	SS
300.	85.65	4	1.0	1.0	320.0	12.35	22.61	13.06	SS
400.	66.01	6	1.0	1.1	10000.0	16.68	14.64	10.11	SS
500.	60.51	6	1.0	1.1	10000.0	16.68	17.97	10.92	SS
600.	56.77	6	1.0	1.1	10000.0	16.68	21.24	11.97	SS
700.	52.56	6	1.0	1.1	10000.0	16.68	24.46	12.98	SS
800.	48.36	6	1.0	1.1	10000.0	16.68	27.63	13.95	SS
900.	44.13	6	1.0	1.1	10000.0	16.68	30.78	14.57	SS
1000.	40.63	6	1.0	1.1	10000.0	16.68	33.88	15.42	SS
1100.	37.46	6	1.0	1.1	10000.0	16.68	36.96	16.24	SS
1200.	34.62	6	1.0	1.1	10000.0	16.68	40.01	17.04	SS
1300.	32.06	6	1.0	1.1	10000.0	16.68	43.04	17.81	SS
1400.	29.77	6	1.0	1.1	10000.0	16.68	46.05	18.57	SS
1500.	27.72	6	1.0	1.1	10000.0	16.68	49.03	19.31	SS
1600.	25.87	6	1.0	1.1	10000.0	16.68	51.99	20.03	SS
1700.	24.21	6	1.0	1.1	10000.0	16.68	54.94	20.74	SS
1800.	22.70	6	1.0	1.1	10000.0	16.68	57.87	21.43	SS
1900.	21.54	6	1.0	1.1	10000.0	16.68	60.78	21.62	SS
2000.	20.33	6	1.0	1.1	10000.0	16.68	63.68	22.20	SS
2100.	19.23	6	1.0	1.1	10000.0	16.68	66.56	22.77	SS
2200.	18.22	6	1.0	1.1	10000.0	16.68	69.42	23.33	SS
2300.	17.30	6	1.0	1.1	10000.0	16.68	72.28	23.88	SS

2400.	16.46	6	1.0	1.1	10000.0	16.68	75.12	24.42	SS
2500.	15.67	6	1.0	1.1	10000.0	16.68	77.95	24.94	SS
2600.	14.95	6	1.0	1.1	10000.0	16.68	80.76	25.46	SS
2700.	14.29	6	1.0	1.1	10000.0	16.68	83.57	25.97	SS
2800.	13.67	6	1.0	1.1	10000.0	16.68	86.36	26.47	SS
2900.	13.09	6	1.0	1.1	10000.0	16.68	89.15	26.97	SS
3000.	12.66	6	1.0	1.1	10000.0	16.68	91.92	27.09	SS
3500.	10.52	6	1.0	1.1	10000.0	16.68	105.65	29.08	SS
4000.	8.941	6	1.0	1.1	10000.0	16.68	119.17	30.93	SS
4500.	7.730	6	1.0	1.1	10000.0	16.68	132.50	32.66	SS
5000.	6.779	6	1.0	1.1	10000.0	16.68	145.67	34.29	SS
5500.	6.014	6	1.0	1.1	10000.0	16.68	158.69	35.84	SS
6000.	5.388	6	1.0	1.1	10000.0	16.68	171.58	37.31	SS
6500.	4.867	6	1.0	1.1	10000.0	16.68	184.34	38.72	SS
7000.	4.434	6	1.0	1.1	10000.0	16.68	196.99	40.00	SS
7500.	4.071	6	1.0	1.1	10000.0	16.68	209.54	41.16	SS
8000.	3.757	6	1.0	1.1	10000.0	16.68	221.98	42.28	SS
8500.	3.484	6	1.0	1.1	10000.0	16.68	234.34	43.36	SS
9000.	3.244	6	1.0	1.1	10000.0	16.68	246.61	44.40	SS
9500.	3.032	6	1.0	1.1	10000.0	16.68	258.79	45.41	SS
10000.	2.843	6	1.0	1.1	10000.0	16.68	270.90	46.38	SS

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 30. M:

50.	203.9	6	2.5	2.6	10000.0	11.21	2.18	6.00	SS

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

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****************************************
     *** REGULATORY (Default) ***
    PERFORMING CAVITY CALCULATIONS
  WITH ORIGINAL SCREEN CAVITY MODEL
          (BRODE, 1988)
****************************************
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*** CAVITY CALCULATION - 1 ***			*** CAVITY CALCULATION - 2 ***		
CONC (UG/M**3)	=	.0000	CONC (UG/M**3)	=	.0000
CRIT WS @10M (M/S)	=	99.99	CRIT WS @10M (M/S)	=	99.99
CRIT WS @ HS (M/S)	=	99.99	CRIT WS @ HS (M/S)	=	99.99
DILUTION WS (M/S)	=	99.99	DILUTION WS (M/S)	=	99.99
CAVITY HT (M)	=	10.13	CAVITY HT (M)	=	9.14
CAVITY LENGTH (M)	=	36.57	CAVITY LENGTH (M)	=	21.80
ALONGWIND DIM (M)	=	18.90	ALONGWIND DIM (M)	=	48.77

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

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****************************************
      END OF CAVITY CALCULATIONS
****************************************
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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
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CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	203.9	50.	0.

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*****************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
*****************************************************
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8. FEDERAL REGULATION APPLICABILITY – FORM FRA DOCUMENTATION

See FORM FRA, attached.

9. CERTIFICATION

I hereby certify that based upon information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

Rebecca Gordon	Secretary-Treasurer
(printed name)	(title)
	3-22-07
(signature)	(date)

Appendix:
Material Data Safety Sheets

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: 1-800-441-9695 (8:00 am to 5:00 pm EST)

PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: ASP-435 (0814)
PRODUCT NAME: 3.5 VOC SHOP PRIMER GRAY
SYNONYMS: None
ISSUE DATE: 04/27/2006
EDITION NO.: 2
CHEMICAL FAMILY: Alkyd

EMERGENCY OVERVIEW:

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES EYE IRRITATION. MAY CAUSE SLIGHT SKIN IRRITATION. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED.MAY BE HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous	
CALCIUM CARBONATE 1317-65-3	15 - 40	X	
TALC 14807-96-6	10 - 30	X	
NAPHTHA 8052-41-3	10 - 30	X	
PETROLEUM DISTILLATES 64741-65-7	5 - 10	X	
V.M. AND P. NAPHTHA 8032-32-4	3 - 7	X	
TITANIUM DIOXIDE 13463-67-7	1 - 5	X	
QUARTZ 14808-60-7	0.1-1.0	X	
XYLENES 1330-20-7	0.1-1.0	X	
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	X	
CARBON BLACK 1333-86-4	0.1-1.0	X	
(As Silica, crystalline and Quartz) 14808-60-7	*	X	See Sections 8 and 15 for information.
[As Rubber solvent (Naphtha)] 8032-32-4	*	X	See Sections 8 and 15 for information.

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause slight skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
Skin absorption not expected to occur.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled.

INGESTION:
May be harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Prolonged exposure to an ingredient(s) in this product may cause kidney and/or liver damage. This product contains crystalline silica which has been classified as a human carcinogen by IARC. Long-term exposures may also lead to a disabling lung condition known as silicosis. The risk depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Use of appropriate personal protective equipment and/or engineering controls should be employed whenever these types of operations are being performed. This product contains talc. In a lifetime inhalation study female rats exposed to an elevated respirable concentration (9 times the Permissible Exposure Limit) of cosmetic grade talc developed lung cancer. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 73 Degrees F (23 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: .9
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IC flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
When this product is used, the overspray and other combustible materials such as paint booth filters, rags, masking materials, etc., contaminated by coating material are subject to spontaneous combustion. Wetting the contaminated materials and not packing them tightly together in refuse containers will minimize the potential for this to occur. Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IC flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT
EYES:
Wear safety glasses with side shields.
SKIN/GLOVES:
Wear protective clothing. Gloves should be constructed of: neoprene rubber or nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.
RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
CALCIUM CARBONATE 1317-65-3	15 - 40	Not established	Not established	R- 5 mg/m^3	Not established
TALC 14807-96-6	10 - 30	R- 2 mg/m^3	Not established	R- 2 mg/m^3	Not established
NAPHTHA 8052-41-3	10 - 30	100 ppm	Not established	100 ppm	Not established
V.M. AND P. NAPHTHA 8032-32-4	3 - 7	300 ppm	Not established	300 ppm	400 ppm
TITANIUM DIOXIDE 13463-67-7	1 - 5	10 mg/m^3	Not established	10 mg/m^3	Not established
QUARTZ 14808-60-7	0.1-1.0	R- 0.05 MG/m^3	Not established	R- 0.1 mg/m^3	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	100 ppm	150 ppm
CARBON BLACK 1333-86-4	0.1-1.0	3.5 mg/m^3	Not established	3.5 mg/m^3	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
CALCIUM CARBONATE 1317-65-3	15 - 40	10 MG/m³	Not established	Not established	Not established
TALC 14807-96-6	10 - 30	R- 2 MG/m³	Not established	Not established	Not established
NAPHTHA 8052-41-3	10 - 30	525 MG/m³	Not established	Not established	Not established
V.M. AND P. NAPHTHA 8032-32-4	3 - 7	500 MG/m³	Not established	Not established	Not established
TITANIUM DIOXIDE 13463-67-7	1 - 5	10 MG/m³	Not established	Not established	Not established
QUARTZ 14808-60-7	0.1-1.0	0.10 MG/m³	Not established	Not established	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	Not established	Not established
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	Not established	Not established	3 ppm	10 ppm
CARBON BLACK 1333-86-4	0.1-1.0	3.5 mg/m³	Not established	Not established	Not established
[As Rubber solvent (Naphtha)] 8032-32-4	*	1600 MG/m³	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.445
PHYSICAL STATE:	Liquid
Percent Solids:	71.30
Percent Volatile by Volume:	53.530
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	7.2 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	42
BOILING POINT OR RANGE:	230 - 468Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	12.04 (U.S.) / 14.4 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Oxides of phosphorus - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
NAPHTHA 8052-41-3	10 - 30	5.00 g/kg	Not Available	5.50 g/L. 4 hr.
TITANIUM DIOXIDE 13463-67-7	1 - 5	10.00 g/kg	Not Available	Not Available
XYLENES 1330-20-7	0.1-1.0	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	1.69 g/kg	Not Available	Not Available
CARBON BLACK 1333-86-4	0.1-1.0	15.40 g/kg	3.00 g/kg	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Blood - Cataract - Spleen - Embryotoxin - Brain - Central nervous system - Ear - Kidney - Liver - Carcinogen - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
TITANIUM DIOXIDE 13463-67-7	1 - 5	This product contains titanium dioxide. Animals inhaling massive quantities of titanium dioxide dust in a long-term study developed lung tumors. Studies with humans involved in manufacture of this pigment indicate no increased risk of cancer from exposure.
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	This product contains methyl ethyl ketoxime (MEKO). Studies in animals indicate that overexposure can cause adverse effects in spleen and kidney, anemia, liver cancer and cataracts.
CARBON BLACK 1333-86-4	0.1-1.0	This product contains carbon black which has been rated an IARC 2B carcinogen due to animal data.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.

Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint
NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: III

USA - RQ Hazardous Substances: Xylenes
USA-RQ Hazardous Substance Threshold Ship Weight: Xylenes>33330 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
CALCIUM CARBONATE 1317-65-3	15 - 40	Not Listed	Not Listed	Not Listed
TALC 14807-96-6	10 - 30	Not Listed	Not Listed	Not Listed
NAPHTHA 8052-41-3	10 - 30	Not Listed	Not Listed	Not Listed
PETROLEUM DISTILLATES 64741-65-7	5 - 10	Not Listed	Not Listed	Not Listed
V.M. AND P. NAPHTHA 8032-32-4	3 - 7	Not Listed	Not Listed	Not Listed
TITANIUM DIOXIDE 13463-67-7	1 - 5	Not Listed	Not Listed	Not Listed
QUARTZ 14808-60-7	0.1-1.0	Not Listed	Not Listed	Not Listed
XYLENES 1330-20-7	0.1-1.0	100 lbs	Not Listed	Listed
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	Not Listed	Not Listed	Not Listed
CARBON BLACK 1333-86-4	0.1-1.0	Not Listed	Not Listed	Not Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 6 - Class D, Division 2, Subdivision A

STATE/PROVINCIAL REGULATIONS
CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause cancer.
Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
QUARTZ 14808-60-7	0.1-1.0	Y	N	N	Y	N	Y
CARBON BLACK 1333-86-4	0.1-1.0	N	N	Y	N	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 1 30
HMIS Rating: 1*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 11 has been updated. Section 2 has been updated. Changes to this section may also result in changes in sections 8, 11 and/or 15. Section 3 has been updated. Section 9 has been updated. Section 14 has been updated. Date. Edition. Updated MSDS format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
ASP-435 000008 (00401027.001)(04/26/06)
060426, 000, 0814

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: 1-800-441-9695 (8:00 am to 5:00 pm EST)

PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: ASP-901 (0814)
PRODUCT NAME: 2.8 VOC SHOP PRIMER - BLACK
SYNONYMS: None
ISSUE DATE: 07/27/2006
EDITION NO.: 3
CHEMICAL FAMILY: Alkyd

EMERGENCY OVERVIEW:

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES EYE IRRITATION. MAY CAUSE SLIGHT SKIN IRRITATION. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED.MAY BE HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous	
CALCIUM CARBONATE 1317-65-3	15 - 40	X	
TALC 14807-96-6	10 - 30	X	
NAPHTHA 8052-41-3	10 - 30	X	
PETROLEUM DISTILLATES 64741-65-7	5 - 10	X	
V.M. AND P. NAPHTHA 8032-32-4	3 - 7	X	
CARBON BLACK 1333-86-4	1 - 5	X	
QUARTZ 14808-60-7	0.1-1.0	X	
XYLENES 1330-20-7	0.1-1.0	X	
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	X	
[As Rubber solvent (Naphtha)] 8032-32-4	*	X	See Sections 8 and 15 for information.
(As Silica, crystalline and Quartz) 14808-60-7	*	X	See Sections 8 and 15 for information.

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause slight skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
Skin absorption not expected to occur.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled.

INGESTION:
May be harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Prolonged exposure to an ingredient(s) in this product may cause kidney and/or liver damage. This product contains crystalline silica which has been classified as a human carcinogen by IARC. Long-term exposures may also lead to a disabling lung condition known as silicosis. The risk depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Use of appropriate personal protective equipment and/or engineering controls should be employed whenever these types of operations are being performed. This product contains talc. In a lifetime inhalation study female rats exposed to an elevated respirable concentration (9 times the Permissible Exposure Limit) of cosmetic grade talc developed lung cancer. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 73 Degrees F (23 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: .9
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IC flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
When this product is used, the overspray and other combustible materials such as paint booth filters, rags, masking materials, etc., contaminated by coating material are subject to spontaneous combustion. Wetting the contaminated materials and not packing them tightly together in refuse containers will minimize the potential for this to occur. Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IC flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT
EYES:
Wear safety glasses with side shields.
SKIN/GLOVES:
Wear protective clothing. Gloves should be constructed of: neoprene rubber or nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.
RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
CALCIUM CARBONATE 1317-65-3	15 - 40	Not established	Not established	R- 5 mg/m^3	Not established
TALC 14807-96-6	10 - 30	R- 2 MG/m^3	Not established	R- 2 mg/m^3	Not established
NAPHTHA 8052-41-3	10 - 30	100 ppm	Not established	100 ppm	Not established
V.M. AND P. NAPHTHA 8032-32-4	3 - 7	300 ppm	Not established	300 ppm	400 ppm
CARBON BLACK 1333-86-4	1 - 5	3.5 mg/m^3	Not established	3.5 mg/m^3	Not established
QUARTZ 14808-60-7	0.1-1.0	R- 0.025 MG/m^3	Not established	R- 0.1 mg/m^3	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 PPM	100 ppm	150 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
CALCIUM CARBONATE 1317-65-3	15 - 40	10 MG/m³	Not established	Not established	Not established
TALC 14807-96-6	10 - 30	R- 2 MG/m³	Not established	Not established	Not established
NAPHTHA 8052-41-3	10 - 30	525 MG/m³	Not established	Not established	Not established
V.M. AND P. NAPHTHA 8032-32-4	3 - 7	500 MG/m³	Not established	Not established	Not established
CARBON BLACK 1333-86-4	1 - 5	3.5 mg/m³	Not established	Not established	Not established
QUARTZ 14808-60-7	0.1-1.0	0.10 MG/m³	Not established	Not established	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	Not established	Not established
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	Not established	Not established	3 ppm	10 ppm
[As Rubber solvent (Naphtha)] 8032-32-4	*	1600 MG/m³	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.393
PHYSICAL STATE:	Liquid
Percent Solids:	70.12
Percent Volatile by Volume:	53.730
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	7.0 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	43
BOILING POINT OR RANGE:	230 - 468Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	11.61 (U.S.) / 13.9 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Oxides of phosphorus - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
NAPHTHA 8052-41-3	10 - 30	5.00 g/kg	Not Available	5.50 g/L. 4 hr.
CARBON BLACK 1333-86-4	1 - 5	15.40 g/kg	3.00 g/kg	Not Available
XYLENES 1330-20-7	0.1-1.0	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	1.69 g/kg	Not Available	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Blood - Cataract - Spleen - Embryotoxin - Brain - Central nervous system - Ear - Kidney - Liver - Carcinogen - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
CARBON BLACK 1333-86-4	1 - 5	This product contains carbon black which has been rated an IARC 2B carcinogen due to animal data.
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	This product contains methyl ethyl ketoxime (MEKO). Studies in animals indicate that overexposure can cause adverse effects in spleen and kidney, anemia, liver cancer and cataracts.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint
NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: III

USA - RQ Hazardous Substances: Xylenes
USA-RQ Hazardous Substance Threshold Ship Weight: Xylenes>32254.84 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
CALCIUM CARBONATE 1317-65-3	15 - 40	Not Listed	Not Listed	Not Listed
TALC 14807-96-6	10 - 30	Not Listed	Not Listed	Not Listed
NAPHTHA 8052-41-3	10 - 30	Not Listed	Not Listed	Not Listed
PETROLEUM DISTILLATES 64741-65-7	5 - 10	Not Listed	Not Listed	Not Listed
V.M. AND P. NAPHTHA 8032-32-4	3 - 7	Not Listed	Not Listed	Not Listed
CARBON BLACK 1333-86-4	1 - 5	Not Listed	Not Listed	Not Listed
QUARTZ 14808-60-7	0.1-1.0	Not Listed	Not Listed	Not Listed
XYLENES 1330-20-7	0.1-1.0	100 lbs	Not Listed	Listed
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	Not Listed	Not Listed	Not Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 6 - Class D, Division 2, Subdivision A

STATE/PROVINCIAL REGULATIONS
CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause cancer.
Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
CARBON BLACK 1333-86-4	1 - 5	N	N	Y	N	N	Y
QUARTZ 14808-60-7	0.1-1.0	Y	N	N	Y	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 1 30
HMIS Rating: 1*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 11 has been updated. Section 2 has been updated. Changes to this section may also result in changes in sections 8, 11 and/or 15. Section 3 has been updated. Date. Edition. Updated MSDS format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
UC87064 000003 (00417549.001)(07/26/06)
060726, 000, 0814

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (740) 363-9610 (DELAWARE, OH) 8:00 a.m. - 5:00 p.m. EST
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: DAR8000 (0808)
PRODUCT NAME: WHITE
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 3
CHEMICAL FAMILY: Alkyd

EMERGENCY OVERVIEW:
Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES EYE IRRITATION. MAY CAUSE SLIGHT SKIN IRRITATION. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
XYLENES 1330-20-7	15 - 40	X
TITANIUM DIOXIDE 13463-67-7	10 - 30	X
ETHYL BENZENE 100-41-4	3 - 7	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.
SKIN CONTACT:
May cause slight skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.
SKIN ABSORPTION:
Skin absorption not expected to occur.
INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat.
INGESTION:
Harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.
CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.
EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.
SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.
INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.
INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 81 Degrees F (27 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.1
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IC flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
When this product is used, the overspray and other combustible materials such as paint booth filters, rags, masking materials, etc., contaminated by coating material are subject to spontaneous combustion. Wetting the contaminated materials and not packing them tightly together in refuse containers will minimize the potential for this to occur. Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IC flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

SKIN/GLOVES:
Wear protective clothing. Gloves should be constructed of: nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
XYLENES 1330-20-7	15 - 40	100 ppm	150 ppm	100 ppm	150 ppm
TITANIUM DIOXIDE 13463-67-7	10 - 30	10 mg/m^3	Not established	10 mg/m^3	Not established
ETHYL BENZENE 100-41-4	3 - 7	100 ppm	125 ppm	100 ppm	125 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
XYLENES 1330-20-7	15 - 40	100 ppm	150 ppm	Not established	Not established
TITANIUM DIOXIDE 13463-67-7	10 - 30	10 MG/m^3	Not established	Not established	Not established
ETHYL BENZENE 100-41-4	3 - 7	100 PPM	125 PPM	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.116
PHYSICAL STATE:	Liquid
Percent Solids:	55.67
Percent Volatile by Volume:	57.080
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	4.9 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	63
BOILING POINT OR RANGE:	172 - 399Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	9.30 (U.S.) / 11.1 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
XYLENES 1330-20-7	15 - 40	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.
TITANIUM DIOXIDE 13463-67-7	10 - 30	10.00 g/kg	Not Available	Not Available
ETHYL BENZENE 100-41-4	3 - 7	3.50 g/kg	17.80 g/kg	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Carcinogen - Kidney - Liver - Embryotoxin - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
TITANIUM DIOXIDE 13463-67-7	10 - 30	This product contains titanium dioxide. Animals inhaling massive quantities of titanium dioxide dust in a long-term study developed lung tumors. Studies with humans involved in manufacture of this pigment indicate no increased risk of cancer from exposure.
ETHYL BENZENE 100-41-4	3 - 7	Ethylbenzene has been reported by NTP to cause cancer in laboratory animals following a chronic (2 year) inhalation exposure. Dose levels of 75, 250 and 750 ppm were used, with evidence of carcinogenicity found in the kidneys of rats and the lung and liver of mice at 750 ppm. The No Observed Effect Level (NOEL) was 75 ppm. The relevance of these findings to humans is uncertain, but appropriate safeguards should be employed to reduce or eliminate inhalation exposure to ethylbenzene.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint
NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: III

USA - RQ Hazardous Substances: Xylenes, Ethyl Benzene
USA-RQ Hazardous Substance Threshold Ship Weight: Xylenes>267 Pounds, Ethyl Benzene>15128.74 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
XYLENES 1330-20-7	15 - 40	100 lbs	Not Listed	Listed
TITANIUM DIOXIDE 13463-67-7	10 - 30	Not Listed	Not Listed	Not Listed
ETHYL BENZENE 100-41-4	3 - 7	1000 lbs	Not Listed	Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 6 - Class D, Division 2, Subdivision A

STATE/PROVINCIAL REGULATIONS
CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause cancer.
Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
ETHYL BENZENE 100-41-4	3 - 7	N	N	Y	N	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DAR8000 000043 (00392178.001)(03/17/06)
060317, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (740) 363-9610 (DELAWARE, OH) 8:00 a.m. - 5:00 p.m. EST
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: DAR9000 (0808)
PRODUCT NAME: DELSTAR BLACK
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 4
CHEMICAL FAMILY: Alkyd

EMERGENCY OVERVIEW:
Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
XYLENES 1330-20-7	40 - 70	X
ETHYL BENZENE 100-41-4	3 - 7	X
METHYL ETHYL KETONE 78-93-3	3 - 7	X
CARBON BLACK 1333-86-4	1 - 5	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.
SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.
SKIN ABSORPTION:
Skin absorption not expected to occur.
INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat.
INGESTION:
Harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.
CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.
EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.
SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.
INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.
INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 81 Degrees F (27 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.3
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IC flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
When this product is used, the overspray and other combustible materials such as paint booth filters, rags, masking materials, etc., contaminated by coating material are subject to spontaneous combustion. Wetting the contaminated materials and not packing them tightly together in refuse containers will minimize the potential for this to occur. Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IC flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
XYLENES 1330-20-7	40 - 70	100 ppm	150 PPM	100 ppm	150 ppm
ETHYL BENZENE 100-41-4	3 - 7	100 ppm	125 ppm	100 ppm	125 ppm
METHYL ETHYL KETONE 78-93-3	3 - 7	200 ppm	300 ppm	200 ppm	300 ppm
CARBON BLACK 1333-86-4	1 - 5	3.5 mg/m^3	Not established	3.5 mg/m^3	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
XYLENES 1330-20-7	40 - 70	100 ppm	150 ppm	Not established	Not established
ETHYL BENZENE 100-41-4	3 - 7	100 PPM	125 PPM	Not established	Not established
METHYL ETHYL KETONE 78-93-3	3 - 7	200 ppm	300 ppm	Not established	250 PPM
CARBON BLACK 1333-86-4	1 - 5	3.5 mg/m^3	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	.948
PHYSICAL STATE:	Liquid
Percent Solids:	44.79
Percent Volatile by Volume:	60.670
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	10.5 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	103
BOILING POINT OR RANGE:	172 - 381Degrees F

Freezing Point or Range: Not Applicable.
Melting Point or Range(°C): Not Applicable.
Partition coefficient (n-octanol/water): Not Applicable.
WEIGHT PER GALLON: 7.90 (U.S.) / 9.4 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
XYLENES 1330-20-7	40 - 70	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.
ETHYL BENZENE 100-41-4	3 - 7	3.50 g/kg	17.80 g/kg	Not Available
METHYL ETHYL KETONE 78-93-3	3 - 7	2.74 g/kg	13.00 g/kg	Not Available
CARBON BLACK 1333-86-4	1 - 5	15.40 g/kg	3.00 g/kg	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Carcinogen - Kidney - Liver - Embryotoxin - Teratogen - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
ETHYL BENZENE 100-41-4	3 - 7	Ethylbenzene has been reported by NTP to cause cancer in laboratory animals following a chronic (2 year) inhalation exposure. Dose levels of 75, 250 and 750 ppm were used, with evidence of carcinogenicity found in the kidneys of rats and the lung and liver of mice at 750 ppm. The No Observed Effect Level (NOEL) was 75 ppm. The relevance of these findings to humans is uncertain, but appropriate safeguards should be employed to reduce or eliminate inhalation exposure to ethylbenzene.
METHYL ETHYL KETONE 78-93-3	3 - 7	This product contains methyl ethyl ketone (MEK). MEK has been shown to cause minor embryotoxic/fetotoxic effects in laboratory animals exposed for prolonged periods at high concentrations via inhalation. The potential for human exposure to high concentrations is expected to be low due to the irritating effects of MEK at low concentrations.
CARBON BLACK 1333-86-4	1 - 5	This product contains carbon black which has been rated an IARC 2B carcinogen due to animal data.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint
NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: III

USA - RQ Hazardous Substances: Xylenes, Ethyl Benzene
USA-RQ Hazardous Substance Threshold Ship Weight: Xylenes>223.39 Pounds, Ethyl Benzene>19493.37 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.

FEDERAL REGULATIONS

US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
XYLENES 1330-20-7	40 - 70	100 lbs	Not Listed	Listed
ETHYL BENZENE 100-41-4	3 - 7	1000 lbs	Not Listed	Listed
METHYL ETHYL KETONE 78-93-3	3 - 7	5000 lbs	Not Listed	Not Listed
CARBON BLACK 1333-86-4	1 - 5	Not Listed	Not Listed	Not Listed

SARA 311/312

Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No

WHMIS HAZARD CLASS: - Class B, Division 6 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS

CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause cancer.

Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
ETHYL BENZENE 100-41-4	3 - 7	N	N	Y	N	N	Y
CARBON BLACK 1333-86-4	1 - 5	N	N	Y	N	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Date. Edition.

Updated MSDS format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DAR9000 000057 (00330943.001)(02/23/05)
050223, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800

PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: DP50LF (0808)
PRODUCT NAME: EPOXY PRIMER GRAY
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 5
CHEMICAL FAMILY: Epoxy

EMERGENCY OVERVIEW:

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.VAPOR AND/OR SPRAY MIST HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL OR FATAL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous	
EPOXY RESIN 25068-38-6	10 - 30	X	
BARIUM SULFATE 7727-43-7	10 - 30	X	
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	X	
CALCIUM CARBONATE 1317-65-3	5 - 10	X	
TITANIUM DIOXIDE 13463-67-7	5 - 10	X	
TOLUENE 108-88-3	3 - 7	X	
2-BUTOXY ETHANOL 111-76-2	1 - 5	X	
AROMATIC NAPHTHA 64742-95-6	1 - 5	X	
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	X	
XYLENES 1330-20-7	1 - 5	X	
TALC 14807-96-6	1 - 5	X	
VINYL RESIN 25086-48-0	1 - 5	X	
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	X	
AMORPHOUS SILICA 112926-00-8	0.5-1.5	X	
ETHYL BENZENE 100-41-4	0.1-1.0	X	
CARBON BLACK 1333-86-4	0.1-1.0	X	
QUARTZ 14808-60-7	0.1-1.0	X	
(As Glycol ethers) 111-76-2	*	X	See Sections 8 and 15 for information.

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be harmful if absorbed through the skin. Prolonged or repeated contact may cause an allergic skin reaction.

INHALATION:
Vapor and/or spray mist harmful if inhaled. Vapor irritates eyes, nose, and throat.

INGESTION:
Harmful or fatal if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.

Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. This product contains crystalline silica which has been classified as a human carcinogen by IARC. Long-term exposures may also lead to a disabling lung condition known as silicosis. The risk depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Use of appropriate personal protective equipment and/or engineering controls should be employed whenever these types of operations are being performed. This product contains toluene. Toluene inhalation in animals (greater than 1500 ppm) and intentional inhalation of toluene-containing products by humans (e.g. glue) has caused adverse fetal development effects. This product contains talc. In a lifetime inhalation study female rats exposed to an elevated respirable concentration (9 times the Permissible Exposure Limit) of cosmetic grade talc developed lung cancer. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother. The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 80 Degrees F (27 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.2
AUTOIGNITION TEMPERATURE:
Not Available.

EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IC flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IC flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
BARIUM SULFATE 7727-43-7	10 - 30	10 mg/m³	Not established	R- 5 mg/m³	Not established
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	50 ppm	Not established	100 ppm	Not established
CALCIUM CARBONATE 1317-65-3	5 - 10	Not established	Not established	R- 5 mg/m³	Not established
TITANIUM DIOXIDE 13463-67-7	5 - 10	10 mg/m³	Not established	10 mg/m³	Not established
TOLUENE 108-88-3	3 - 7	S- 50 ppm	Not established	100 ppm	150 ppm
2-BUTOXY ETHANOL 111-76-2	1 - 5	20 PPM	Not established	S- 25 ppm	Not established
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	50 ppm	75 ppm	50 ppm	75 ppm
XYLENES 1330-20-7	1 - 5	100 ppm	150 ppm	100 ppm	150 ppm
TALC 14807-96-6	1 - 5	R- 2 mg/m³	Not established	R- 2 mg/m³	Not established
AMORPHOUS SILICA 112926-00-8	0.5-1.5	10 mg/m³	Not established	6 mg/m³	Not established
ETHYL BENZENE 100-41-4	0.1-1.0	100 ppm	125 ppm	100 ppm	125 ppm
CARBON BLACK 1333-86-4	0.1-1.0	3.5 mg/m³	Not established	3.5 mg/m³	Not established
QUARTZ 14808-60-7	0.1-1.0	R- 0.05 MG/m³	Not established	R- 0.1 mg/m³	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
BARIUM SULFATE 7727-43-7	10 - 30	10 MG/m³	Not established	Not established	Not established
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	25 ppm	Not established	Not established	Not established
CALCIUM CARBONATE 1317-65-3	5 - 10	10 MG/m³	Not established	Not established	Not established
TITANIUM DIOXIDE 13463-67-7	5 - 10	10 MG/m³	Not established	Not established	Not established
TOLUENE 108-88-3	3 - 7	50 PPM	Not established	Not established	Not established
2-BUTOXY ETHANOL 111-76-2	1 - 5	S- 20 PPM	Not established	Not established	Not established
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	50 ppm	75 PPM	Not established	Not established
XYLENES 1330-20-7	1 - 5	100 ppm	150 ppm	Not established	Not established
TALC 14807-96-6	1 - 5	R- 2 MG/m³	Not established	Not established	Not established
AMORPHOUS SILICA 112926-00-8	0.5-1.5	10 MG/m³	Not established	Not established	Not established
ETHYL BENZENE 100-41-4	0.1-1.0	100 PPM	125 PPM	Not established	Not established
CARBON BLACK 1333-86-4	0.1-1.0	3.5 mg/m³	Not established	Not established	Not established
QUARTZ 14808-60-7	0.1-1.0	0.10 MG/m³	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S- Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES
(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.410
PHYSICAL STATE:	Liquid
Percent Solids:	64.65
Percent Volatile by Volume:	58.790
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	7.4 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	78
BOILING POINT OR RANGE:	212 - 381Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	11.75 (U.S.) / 14.1 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY
STABILITY:
This product is normally stable and will not undergo hazardous reactions.

CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Oxides of sulfur - Oxides of barium - Oxides of phosphorus - Lower molecular weight polymer fractions - Silicon oxides

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
EPOXY RESIN 25068-38-6	10 - 30	2.00 g/kg	2.00 g/kg	Not Available
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	1.60 g/kg	10.21 g/kg	Not Available
TITANIUM DIOXIDE 13463-67-7	5 - 10	10.00 g/kg	Not Available	Not Available
TOLUENE 108-88-3	3 - 7	.64 g/kg	8.39 g/kg	12.50 g/L. 4 hr.
2-BUTOXY ETHANOL 111-76-2	1 - 5	.47 g/kg	.22 g/kg	2.18 g/L. 4 hr.
AROMATIC NAPHTHA 64742-95-6	1 - 5	8.40 g/kg	3.48 g/kg	5.20 g/L. 4 hr.
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	2.08 g/kg	Not Available	32.77 g/L. 4 hr.
XYLENES 1330-20-7	1 - 5	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	Not Available	Not Available	18.00 g/L. 4 hr.
ETHYL BENZENE 100-41-4	0.1-1.0	3.50 g/kg	17.80 g/kg	Not Available
CARBON BLACK 1333-86-4	0.1-1.0	15.40 g/kg	3.00 g/kg	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- None known - Bone marrow and blood tissues - Blood - Kidney - Liver - Teratogen - Embryotoxin - Brain - Central nervous system - Carcinogen - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
TITANIUM DIOXIDE 13463-67-7	5 - 10	This product contains titanium dioxide. Animals inhaling massive quantities of titanium dioxide dust in a long-term study developed lung tumors. Studies with humans involved in manufacture of this pigment indicate no increased risk of cancer from exposure.
2-BUTOXY ETHANOL 111-76-2	1 - 5	This product contains an ethylene series glycol ether and/or acetate which has been shown to cause adverse effects on the kidneys, liver, blood and/or blood-forming tissue. In a two-year NTP inhalation study, there was no significant increase in the incidence of any type of tumor in rats exposed to 2-butoxy ethanol at concentrations up to 125 ppm except a questionable trend in the incidence of adrenal gland tumors in female rats. When mice were exposed to concentrations of 62.5, 125, and 250 ppm, there was some evidence of carcinogenicity found in the liver of male mice and the forestomach of female mice at 250 ppm. This product contains an ingredient which has been shown to cause adverse reproductive effects in animals at doses which are also toxic to the mother.
ETHYL BENZENE 100-41-4	0.1-1.0	Ethylbenzene has been reported by NTP to cause cancer in laboratory animals following a chronic (2 year) inhalation exposure. Dose levels of 75, 250 and 750 ppm were used, with evidence of carcinogenicity found in the kidneys of rats and the lung and liver of mice at 750 ppm. The No Observed Effect Level (NOEL) was 75 ppm. The relevance of these findings to humans is uncertain, but appropriate safeguards should be employed to reduce or eliminate inhalation exposure to ethylbenzene.
CARBON BLACK 1333-86-4	0.1-1.0	This product contains carbon black which has been rated an IARC 2B carcinogen due to animal data.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint
NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: III

USA - RQ Hazardous Substances: Xylenes, Toluene
USA-RQ Hazardous Substance Threshold Ship Weight: Xylenes>3278.36 Pounds, Toluene>18622.16 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
EPOXY RESIN 25068-38-6	10 - 30	Not Listed	Not Listed	Not Listed
BARIUM SULFATE 7727-43-7	10 - 30	Not Listed	Not Listed	Not Listed
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	Not Listed	Not Listed	Not Listed
CALCIUM CARBONATE 1317-65-3	5 - 10	Not Listed	Not Listed	Not Listed
TITANIUM DIOXIDE 13463-67-7	5 - 10	Not Listed	Not Listed	Not Listed
TOLUENE 108-88-3	3 - 7	1000 lbs	Not Listed	Listed
2-BUTOXY ETHANOL 111-76-2	1 - 5	Not Listed	Not Listed	Not Listed
AROMATIC NAPHTHA 64742-95-6	1 - 5	Not Listed	Not Listed	Not Listed
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	5000 lbs	Not Listed	Listed
XYLENES 1330-20-7	1 - 5	100 lbs	Not Listed	Listed
TALC 14807-96-6	1 - 5	Not Listed	Not Listed	Not Listed
VINYL RESIN 25086-48-0	1 - 5	Not Listed	Not Listed	Not Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	Not Listed	Not Listed	Listed
AMORPHOUS SILICA 112926-00-8	0.5-1.5	Not Listed	Not Listed	Not Listed
ETHYL BENZENE 100-41-4	0.1-1.0	1000 lbs	Not Listed	Listed
CARBON BLACK 1333-86-4	0.1-1.0	Not Listed	Not Listed	Not Listed
QUARTZ 14808-60-7	0.1-1.0	Not Listed	Not Listed	Not Listed
(As Glycol ethers) 111-76-2	*	Not Listed	Not Listed	Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B - Class D, Division 1, Subdivision B

STATE/PROVINCIAL REGULATIONS
CALIFORNIA PROP. 65: WARNING: This product contains a chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.
Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
ETHYL BENZENE 100-41-4	0.1-1.0	N	N	Y	N	N	Y
CARBON BLACK 1333-86-4	0.1-1.0	N	N	Y	N	N	Y
QUARTZ 14808-60-7	0.1-1.0	Y	N	N	Y	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 14 has been updated. Date. Edition. Updated MSDS format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DP50LF 000012 (00338450.001)(04/07/05)
050407, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (412) 434-4515 (U.S.)
(24 hours/day):
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: DP90LF (0808)
PRODUCT NAME: EPOXY PRIMER BLACK
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 3
CHEMICAL FAMILY: Epoxy

EMERGENCY OVERVIEW:

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.VAPOR AND/OR SPRAY MIST HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL OR FATAL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous	
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CALCIUM CARBONATE 1317-65-3	10 - 30	X	
BARIUM SULFATE 7727-43-7	10 - 30	X	
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	X	
TOLUENE 108-88-3	3 - 7	X	
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	X	
2-BUTOXY ETHANOL 111-76-2	1 - 5	X	
AROMATIC NAPHTHA 64742-95-6	1 - 5	X	
XYLENES 1330-20-7	1 - 5	X	
TALC 14807-96-6	1 - 5	X	
VINYL RESIN 25086-48-0	1 - 5	X	
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	X	
CARBON BLACK 1333-86-4	1 - 5	X	
ETHYL BENZENE 100-41-4	0.1-1.0	X	
QUARTZ 14808-60-7	0.1-1.0	X	
(As Silica, crystalline and Quartz) 14808-60-7	*	X	See Sections 8 and 15 for information.
(Mineral Spirits Group #2) 64742-95-6	*	X	See Sections 8 and 15 for information.
(As Glycol ethers) 111-76-2	*	X	See Sections 8 and 15 for information.
(Ontario Glycol Ether) 111-76-2	*	X	See Sections 8 and 15 for information.

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be harmful if absorbed through the skin. Prolonged or repeated contact may cause an allergic skin reaction.

INHALATION:
Vapor and/or spray mist harmful if inhaled. Vapor irritates eyes, nose, and throat.

INGESTION:
Harmful or fatal if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS

Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. This product contains crystalline silica which has been classified as a human carcinogen by IARC. Long-term exposures may also lead to a disabling lung condition known as silicosis. The risk depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Use of appropriate personal protective equipment and/or engineering controls should be employed whenever these types of operations are being performed. This product contains toluene. Toluene inhalation in animals (greater than 1500 ppm) and intentional inhalation of toluene-containing products by humans (e.g. glue) has caused adverse fetal development effects. This product contains talc. In a lifetime inhalation study female rats exposed to an elevated respirable concentration (9 times the Permissible Exposure Limit) of cosmetic grade talc developed lung cancer. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother. The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:

Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:

Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:

Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:

Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: 80 Degrees F (27 Degrees C)

FLASHPOINT TEST METHOD:

Pensky-Martens Closed Cup

UEL: Not Available.

LEL: 1.2

AUTOIGNITION TEMPERATURE:

Not Available.

EXTINGUISHING MEDIA:

Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IC flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

PROTECTION OF FIREFIGHTERS:

Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:

Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:

Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IC flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:

Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

SKIN/GLOVES:

Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
CALCIUM CARBONATE 1317-65-3	10 - 30	Not established	Not established	R- 5 mg/m³	Not established
BARIUM SULFATE 7727-43-7	10 - 30	10 mg/m³	Not established	R- 5 mg/m³	Not established
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	50 ppm	Not established	100 ppm	Not established
TOLUENE 108-88-3	3 - 7	S- 50 ppm	Not established	100 ppm	150 ppm
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	50 ppm	75 ppm	50 ppm	75 ppm
2-BUTOXY ETHANOL 111-76-2	1 - 5	20 PPM	Not established	S- 25 ppm	Not established
XYLENES 1330-20-7	1 - 5	100 ppm	150 ppm	100 ppm	150 ppm
TALC 14807-96-6	1 - 5	R- 2 mg/m³	Not established	R- 2 mg/m³	Not established
CARBON BLACK 1333-86-4	1 - 5	3.5 mg/m³	Not established	3.5 mg/m³	Not established
ETHYL BENZENE 100-41-4	0.1-1.0	100 ppm	125 ppm	100 ppm	125 ppm
QUARTZ 14808-60-7	0.1-1.0	R- 0.05 MG/m³	Not established	R- 0.1 mg/m³	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
CALCIUM CARBONATE 1317-65-3	10 - 30	10 MG/m³	Not established	Not established	Not established
BARIUM SULFATE 7727-43-7	10 - 30	10 MG/m³	Not established	Not established	Not established
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	25 ppm	Not established	Not established	Not established
TOLUENE 108-88-3	3 - 7	50 PPM	Not established	Not established	Not established
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	50 ppm	75 PPM	Not established	Not established
2-BUTOXY ETHANOL 111-76-2	1 - 5	S- 20 PPM	Not established	Not established	Not established
XYLENES 1330-20-7	1 - 5	100 ppm	150 ppm	Not established	Not established
TALC 14807-96-6	1 - 5	R- 2 MG/m³	Not established	Not established	Not established
CARBON BLACK 1333-86-4	1 - 5	3.5 mg/m³	Not established	Not established	Not established
ETHYL BENZENE 100-41-4	0.1-1.0	100 PPM	125 PPM	Not established	Not established
QUARTZ 14808-60-7	0.1-1.0	0.10 MG/m³	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S- Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES
(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.338
PHYSICAL STATE:	Liquid
Percent Solids:	62.27
Percent Volatile by Volume:	59.720
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	8.0 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	84
BOILING POINT OR RANGE:	212 - 381Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	11.15 (U.S.) / 13.3 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.

HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Oxides of sulfur - Oxides of barium
- Oxides of phosphorus - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
EPOXY RESIN 25068-38-6	10 - 30	2.00 g/kg	2.00 g/kg	Not Available
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	1.60 g/kg	10.21 g/kg	Not Available
TOLUENE 108-88-3	3 - 7	.64 g/kg	8.39 g/kg	12.50 g/L. 4 hr.
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	2.08 g/kg	Not Available	32.77 g/L. 4 hr.
2-BUTOXY ETHANOL 111-76-2	1 - 5	.47 g/kg	.22 g/kg	2.18 g/L. 4 hr.
AROMATIC NAPHTHA 64742-95-6	1 - 5	8.40 g/kg	3.48 g/kg	5.20 g/L. 4 hr.
XYLENES 1330-20-7	1 - 5	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	Not Available	Not Available	18.00 g/L. 4 hr.
CARBON BLACK 1333-86-4	1 - 5	15.40 g/kg	3.00 g/kg	Not Available
ETHYL BENZENE 100-41-4	0.1-1.0	3.50 g/kg	17.80 g/kg	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Bone marrow and blood tissues - Blood - Kidney - Liver - Teratogen - Embryotoxin - Brain - Central nervous system - Carcinogen - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
2-BUTOXY ETHANOL 111-76-2	1 - 5	This product contains an ethylene series glycol ether and/or acetate which has been shown to cause adverse effects on the kidneys, liver, blood and/or blood-forming tissue. In a two-year NTP inhalation study, there was no significant increase in the incidence of any type of tumor in rats exposed to 2-butoxy ethanol at concentrations up to 125 ppm except a questionable trend in the incidence of adrenal gland tumors in female rats. When mice were exposed to concentrations of 62.5, 125, and 250 ppm, there was some evidence of carcinogenicity found in the liver of male mice and the forestomach of female mice at 250 ppm. This product contains an ingredient which has been shown to cause adverse reproductive effects in animals at doses which are also toxic to the mother.
CARBON BLACK 1333-86-4	1 - 5	This product contains carbon black which has been rated an IARC 2B carcinogen due to animal data.
ETHYL BENZENE 100-41-4	0.1-1.0	Ethylbenzene has been reported by NTP to cause cancer in laboratory animals following a chronic (2 year) inhalation exposure. Dose levels of 75, 250 and 750 ppm were used, with evidence of carcinogenicity found in the kidneys of rats and the lung and liver of mice at 750 ppm. The No Observed Effect Level (NOEL) was 75 ppm. The relevance of these findings to humans is uncertain, but appropriate safeguards should be employed to reduce or eliminate inhalation exposure to ethylbenzene.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint
NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: III

USA - RQ Hazardous Substances: Xylenes, Toluene
USA-RQ Hazardous Substance Threshold Ship Weight: Xylenes>3194.57 Pounds, Toluene>17985.79 Pounds
Marine Pollutant Name: None

USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.

FEDERAL REGULATIONS

US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
EPOXY RESIN 25068-38-6	10 - 30	Not Listed	Not Listed	Not Listed
CALCIUM CARBONATE 1317-65-3	10 - 30	Not Listed	Not Listed	Not Listed
BARIUM SULFATE 7727-43-7	10 - 30	Not Listed	Not Listed	Not Listed
METHYL (N-AMYL) KETONE 110-43-0	7 - 13	Not Listed	Not Listed	Not Listed
TOLUENE 108-88-3	3 - 7	1000 lbs	Not Listed	Listed
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	5000 lbs	Not Listed	Listed
2-BUTOXY ETHANOL 111-76-2	1 - 5	Not Listed	Not Listed	Not Listed
AROMATIC NAPHTHA 64742-95-6	1 - 5	Not Listed	Not Listed	Not Listed
XYLENES 1330-20-7	1 - 5	100 lbs	Not Listed	Listed
TALC 14807-96-6	1 - 5	Not Listed	Not Listed	Not Listed
VINYL RESIN 25086-48-0	1 - 5	Not Listed	Not Listed	Not Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	Not Listed	Not Listed	Listed
CARBON BLACK 1333-86-4	1 - 5	Not Listed	Not Listed	Not Listed
ETHYL BENZENE 100-41-4	0.1-1.0	1000 lbs	Not Listed	Listed
QUARTZ 14808-60-7	0.1-1.0	Not Listed	Not Listed	Not Listed
(As Glycol ethers) 111-76-2	*	Not Listed	Not Listed	Listed

SARA 311/312

Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No

WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B - Class D, Division 1, Subdivision B

STATE/PROVINCIAL REGULATIONS

CALIFORNIA PROP. 65: WARNING: This product contains a chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
CARBON BLACK 1333-86-4	1 - 5	N	N	Y	N	N	Y
ETHYL BENZENE 100-41-4	0.1-1.0	N	N	Y	N	N	Y
QUARTZ 14808-60-7	0.1-1.0	Y	N	N	Y	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 2 has been updated. Changes to this section may also result in changes in sections 8, 11 and/or 15. Section 11 has been updated. Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DP90LF 000010 (00353877.001)(07/27/05)
050727, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

EMERGENCY PHONE NUMBERS (24 hours/day): (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (414) 764-6000 (OAK CREEK, WI) 8:00 a.m. - 5:00 p.m. Central

PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: DP401LF> (0819)
PRODUCT NAME: LOW VOC DP CATALYST
SYNONYMS: None
ISSUE DATE: 09/01/2006
EDITION NO.: 1
CHEMICAL FAMILY: Polyamide

EMERGENCY OVERVIEW:

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.VAPOR AND/OR SPRAY MIST HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT. VAPOR GENERATED AT ELEVATED TEMPERATURES IRRITATES EYES, NOSE AND THROAT.HARMFUL OR FATAL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous	
N.J. TRADE SECRET #80100337-5132	10 - 30	X	
PROPYL ALCOHOL 71-23-8	10 - 30	X	
XYLENES 1330-20-7	10 - 30	X	
AROMATIC NAPHTHA 64742-95-6	7 - 13	X	
2-BUTOXY ETHANOL 111-76-2	5 - 10	X	
ISOPROPYL ALCOHOL 67-63-0	3 - 7	X	
1,2,4-TRIMETHYL BENZENE 95-63-6	3 - 7	X	
(As Glycol ethers) 111-76-2	*	X	See Sections 8 and 15 for information.

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be harmful if absorbed through the skin. Prolonged or repeated contact may cause an allergic skin reaction.

INHALATION:
Vapor and/or spray mist harmful if inhaled. Vapor irritates eyes, nose, and throat. Vapor generated at elevated temperatures irritates eyes, nose and throat.

INGESTION:
Harmful or fatal if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.
Prolonged exposure to an ingredient(s) in this product may cause kidney and/or liver damage. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Do Not induce vomiting. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 64 Degrees F (18 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.9
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.
STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT
EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.
SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: butyl rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.
RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
PROPYL ALCOHOL 71-23-8	10 - 30	200 PPM	400 PPM	200 ppm	250 ppm
XYLENES 1330-20-7	10 - 30	100 ppm	150 PPM	100 ppm	150 ppm
2-BUTOXY ETHANOL 111-76-2	5 - 10	20 PPM	Not established	S- 25 ppm	Not established
ISOPROPYL ALCOHOL 67-63-0	3 - 7	200 PPM	400 PPM	400 ppm	500 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
PROPYL ALCOHOL 71-23-8	10 - 30	S- 200 ppm	250 ppm	Not established	Not established
XYLENES 1330-20-7	10 - 30	100 ppm	150 ppm	Not established	Not established
2-BUTOXY ETHANOL 111-76-2	5 - 10	S- 20 PPM	Not established	Not established	Not established
ISOPROPYL ALCOHOL 67-63-0	3 - 7	200 PPM	400 PPM	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit (1989 Vacated values); IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Absorption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	.880
PHYSICAL STATE:	Liquid
Percent Solids:	29.77

Percent Volatile by Volume:	72.990
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	35.8 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	87
BOILING POINT OR RANGE:	180 - 351Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	7.33 (U.S.) / 8.7 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Oxides of nitrogen - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
PROPYL ALCOHOL 71-23-8	10 - 30	1.87 g/kg	4.05 g/kg	9.80 g/L. 4 hr.
XYLENES 1330-20-7	10 - 30	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.
AROMATIC NAPHTHA 64742-95-6	7 - 13	8.40 g/kg	3.48 g/kg	5.20 g/L. 4 hr.
2-BUTOXY ETHANOL 111-76-2	5 - 10	.47 g/kg	.22 g/kg	2.18 g/L. 4 hr.
ISOPROPYL ALCOHOL 67-63-0	3 - 7	4.40 g/kg	12.80 g/kg	72.60 g/L. 4 hr.
1,2,4-TRIMETHYL BENZENE 95-63-6	3 - 7	Not Available	Not Available	18.00 g/L. 4 hr.

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Bone marrow and blood tissues - Blood - Embryotoxin - Ear - Kidney - Liver - Brain - Central nervous system - Lung - Carcinogen

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
PROPYL ALCOHOL 71-23-8	10 - 30	This product contains n-propanol. ACGIH has classified n-propanol as an A3 carcinogen (confirmed animal carcinogen with unknown relevance to humans).
2-BUTOXY ETHANOL 111-76-2	5 - 10	This product contains an ethylene series glycol ether and/or acetate which has been shown to cause adverse effects on the kidneys, liver, blood and/or blood-forming tissue. In a two-year NTP inhalation study, there was no significant increase in the incidence of any type of tumor in rats exposed to 2-butoxy ethanol at concentrations up to 125 ppm except a questionable trend in the incidence of adrenal gland tumors in female rats. When mice were exposed to concentrations of 62.5, 125, and 250 ppm, there was some evidence of carcinogenicity found in the liver of male mice and the forestomach of female mice at 250 ppm. This product contains an ingredient which has been shown to cause adverse reproductive effects in animals at doses which are also toxic to the mother.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	NOT AVAILABLE
NOS Technical Name:	NOT AVAILABLE
Hazard Class:	N.A.
Subsidiary Class(es):	N.A.
UN Number:	N.A.
Packing Group:	N.A.

USA - RQ Hazardous Substances:	NOT AVAILABLE
USA-RQ Hazardous Substance Threshold Ship Weight:	NOT AVAILABLE
Marine Pollutant Name:	NOT AVAILABLE

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
N.J. TRADE SECRET #80100337-5132	10 - 30	Not Listed	Not Listed	Not Listed
PROPYL ALCOHOL 71-23-8	10 - 30	Not Listed	Not Listed	Not Listed
XYLENES 1330-20-7	10 - 30	100 lbs	Not Listed	Listed
AROMATIC NAPHTHA 64742-95-6	7 - 13	Not Listed	Not Listed	Not Listed
2-BUTOXY ETHANOL 111-76-2	5 - 10	Not Listed	Not Listed	Not Listed
ISOPROPYL ALCOHOL 67-63-0	3 - 7	Not Listed	Not Listed	Not Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	3 - 7	Not Listed	Not Listed	Listed
(As Glycol ethers) 111-76-2	*	Not Listed	Not Listed	Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B - Class D, Division 1, Subdivision B

STATE/PROVINCIAL REGULATIONS
Additional Information
Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DP401LF> 000001 (00423795.001)(09/01/06)
060831, 000, 0819

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: 1-800-245-2590 (CLEVELAND, OH) 8:00 a.m. - 5:00 p.m. EST
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: DT870 (0808)
PRODUCT NAME: REDUCER
SYNONYMS: None
ISSUE DATE: 05/02/2006
EDITION NO.: 4
CHEMICAL FAMILY: SOLVENT

EMERGENCY OVERVIEW:
Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous	
METHYL ETHYL KETONE 78-93-3	15 - 40	X	
1-METHOXY-2-PROPYL ACETATE 108-65-6	10 - 30	X	
TOLUENE 108-88-3	10 - 30	X	
V.M. AND P. NAPHTHA 8032-32-4	10 - 30	X	
NAPHTHA 64742-89-8	1 - 5	X	
N-HEPTANE 142-82-5	1 - 5	X	
METHYLCYCLOHEXANE 108-87-2	1 - 5	X	
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	X	
[As Rubber solvent (Naphtha)] 8032-32-4	*	X	See Sections 8 and 15 for information.

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
Skin absorption not expected to occur.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat.

INGESTION:
Harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. This product contains toluene. Toluene inhalation in animals (greater than 1500 ppm) and intentional inhalation of toluene-containing products by humans (e.g. glue) has caused adverse fetal development effects.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 23 Degrees F (-5 Degrees C)

FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.5
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.
STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT
EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.
SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: butyl, neoprene, or nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.
RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
METHYL ETHYL KETONE 78-93-3	15 - 40	200 ppm	300 ppm	200 ppm	300 ppm
TOLUENE 108-88-3	10 - 30	S- 50 ppm	Not established	100 ppm	150 ppm
V.M. AND P. NAPHTHA 8032-32-4	10 - 30	300 ppm	Not established	300 ppm	400 ppm
N-HEPTANE 142-82-5	1 - 5	400 ppm	500 ppm	400 ppm	500 ppm
METHYLCYCLOHEXANE 108-87-2	1 - 5	400 ppm	Not established	400 ppm	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
METHYL ETHYL KETONE 78-93-3	15 - 40	200 ppm	300 ppm	Not established	250 PPM
1-METHOXY-2-PROPYL ACETATE 108-65-6	10 - 30	50 PPM	Not established	100 ppm	Not established
TOLUENE 108-88-3	10 - 30	50 PPM	Not established	Not established	Not established
V.M. AND P. NAPHTHA 8032-32-4	10 - 30	500 MG/m^3	Not established	Not established	Not established
N-HEPTANE 142-82-5	1 - 5	400 ppm	500 ppm	Not established	Not established
METHYLCYCLOHEXANE 108-87-2	1 - 5	400 ppm	Not established	Not established	Not established
[As Rubber solvent (Naphtha)] 8032-32-4	*	1600 MG/m^3	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	.829
PHYSICAL STATE:	Liquid
Percent Solids:	.00
Percent Volatile by Volume:	100.000
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	41.4 mmHg
ODOR/APPEARANCE:	Non-viscous liquid with an odor characteristic of the ingredients listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	346
BOILING POINT OR RANGE:	172- 302Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	6.91 (U.S.) / 8.2 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
METHYL ETHYL KETONE 78-93-3	15 - 40	2.74 g/kg	13.00 g/kg	Not Available
1-METHOXY-2-PROPYL ACETATE 108-65-6	10 - 30	8.53 g/kg	5.00 g/kg	Not Available
TOLUENE 108-88-3	10 - 30	.64 g/kg	8.39 g/kg	12.50 g/L. 4 hr.
METHYLCYCLOHEXANE 108-87-2	1 - 5	4.00 g/kg	Not Available	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Reproductive - Embryotoxin - Teratogen - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
METHYL ETHYL KETONE 78-93-3	15 - 40	This product contains methyl ethyl ketone (MEK). MEK has been shown to cause minor embryotoxic/fetotoxic effects in laboratory animals exposed for prolonged periods at high concentrations via inhalation. The potential for human exposure to high concentrations is expected to be low due to the irritating effects of MEK at low concentrations.
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	Possible reproductive hazard. An ingredient(s) in this product has adversely affected reproductive tissues and fetal development in test animals.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Paint Related Material
NOS Technical Name:	None
Hazard Class:	3
Subsidiary Class(es):	None
UN Number:	UN1263
Packing Group:	II

USA - RQ Hazardous Substances: Toluene, Methyl Ethyl Ketone
USA-RQ Hazardous Substance Threshold Ship Weight: Toluene>5263.21 Pounds, Methyl Ethyl Ketone>15398.85 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.

FEDERAL REGULATIONS

US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
METHYL ETHYL KETONE 78-93-3	15 - 40	5000 lbs	Not Listed	Not Listed
1-METHOXY-2-PROPYL ACETATE 108-65-6	10 - 30	Not Listed	Not Listed	Not Listed
TOLUENE 108-88-3	10 - 30	1000 lbs	Not Listed	Listed
V.M. AND P. NAPHTHA 8032-32-4	10 - 30	Not Listed	Not Listed	Not Listed
NAPHTHA 64742-89-8	1 - 5	Not Listed	Not Listed	Not Listed
N-HEPTANE 142-82-5	1 - 5	Not Listed	Not Listed	Not Listed
METHYLCYCLOHEXANE 108-87-2	1 - 5	Not Listed	Not Listed	Not Listed
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	Not Listed	Not Listed	Not Listed

SARA 311/312

Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No

WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS

CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Additional Information

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2 30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department

REASON FOR REVISION: Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DT870 000003 (00372162.001)(11/23/05)
051122, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

EMERGENCY PHONE NUMBERS (24 hours/day): (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800 (STRONGSVILLE OHIO) 8:00 a.m. - 5:00 p.m. EST

PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: DTL10 (0808)
PRODUCT NAME: ACRYLIC LACQUER THINNER
SYNONYMS: None
ISSUE DATE: 05/02/2006
EDITION NO.: 7
CHEMICAL FAMILY: SOLVENT

EMERGENCY OVERVIEW:

Extremely flammable. Vapors may cause flash fires. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT. VAPOR GENERATED AT ELEVATED TEMPERATURES IRRITATES EYES, NOSE AND THROAT.HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
TOLUENE 108-88-3	40 - 70	X
ACETONE 67-64-1	10 - 30	X
ISOPROPYL ALCOHOL 67-63-0	10 - 30	X
N-HEXANE 110-54-3	3 - 7	X
NAPHTHA 64742-89-8	1 - 5	X
ISOHEXANE 107-83-5	1 - 5	X
1-METHOXY-2-PROPYL ACETATE 108-65-6	1 - 5	X
3-METHYLPENTANE 96-14-0	1 - 5	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be harmful if absorbed through the skin.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat. Vapor generated at elevated temperatures irritates eyes, nose and throat.

INGESTION:
Harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. N-hexane has caused peripheral neuropathy, characterized by numbness and weakness in the extremities. This product contains toluene. Toluene inhalation in animals (greater than 1500 ppm) and intentional inhalation of toluene-containing products by humans (e.g. glue) has caused adverse fetal development effects.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 10 Degrees F (-12 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.5
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.
STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT
EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.
SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.
RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
TOLUENE 108-88-3	40 - 70	S- 50 ppm	Not established	100 ppm	150 ppm
ACETONE 67-64-1	10 - 30	500 ppm	750 ppm	750 ppm	1000 ppm
ISOPROPYL ALCOHOL 67-63-0	10 - 30	200 PPM	400 PPM	400 ppm	500 ppm
N-HEXANE 110-54-3	3 - 7	S- 50 ppm	Not established	50 ppm	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
TOLUENE 108-88-3	40 - 70	50 PPM	Not established	Not established	Not established
ACETONE 67-64-1	10 - 30	500 PPM	750 PPM	Not established	Not established
ISOPROPYL ALCOHOL 67-63-0	10 - 30	200 PPM	400 PPM	Not established	Not established
N-HEXANE 110-54-3	3 - 7	50 ppm	Not established	Not established	Not established
1-METHOXY-2-PROPYL ACETATE 108-65-6	1 - 5	50 PPM	Not established	100 ppm	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)
SPECIFIC GRAVITY: .803
PHYSICAL STATE: Liquid

Percent Solids:	.00
Percent Volatile by Volume:	100.000
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	88.1 mmHg
ODOR/APPEARANCE:	Non-viscous liquid with an odor characteristic of the ingredients listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	537
BOILING POINT OR RANGE:	133- 302Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	6.69 (U.S.) / 8.0 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
TOLUENE 108-88-3	40 - 70	.64 g/kg	8.39 g/kg	12.50 g/L. 4 hr.
ACETONE 67-64-1	10 - 30	1.80 g/kg	20.00 g/kg	76.00 g/L. 4 hr.
ISOPROPYL ALCOHOL 67-63-0	10 - 30	4.40 g/kg	12.80 g/kg	72.60 g/L. 4 hr.
1-METHOXY-2-PROPYL ACETATE 108-65-6	1 - 5	8.53 g/kg	5.00 g/kg	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Teratogen - Neurotoxin - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Paint Related Material
NOS Technical Name:	None
Hazard Class:	3
Subsidiary Class(es):	None
UN Number:	UN1263
Packing Group:	II

USA - RQ Hazardous Substances:	Toluene, Acetone, Benzene
USA-RQ Hazardous Substance Threshold Ship Weight:	Toluene>2206.07 Pounds, Acetone>25445.32 Pounds, Benzene>33366.67 Pounds
Marine Pollutant Name:	None

USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
TOLUENE 108-88-3	40 - 70	1000 lbs	Not Listed	Listed
ACETONE 67-64-1	10 - 30	5000 lbs	Not Listed	Not Listed
ISOPROPYL ALCOHOL 67-63-0	10 - 30	Not Listed	Not Listed	Not Listed
N-HEXANE 110-54-3	3 - 7	5000 LBS	Not Listed	Listed
NAPHTHA 64742-89-8	1 - 5	Not Listed	Not Listed	Not Listed
ISOHEXANE 107-83-5	1 - 5	Not Listed	Not Listed	Not Listed
1-METHOXY-2-PROPYL ACETATE 108-65-6	1 - 5	Not Listed	Not Listed	Not Listed
3-METHYLPENTANE 96-14-0	1 - 5	Not Listed	Not Listed	Not Listed

SARA 311/312

Health (acute):	Yes
Health (chronic):	Yes
Fire (flammable):	Yes
Pressure:	No
Reactivity:	No

WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS
CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
Additional Information
Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 15 has been updated. Section 1 has been updated. Section 3 has been updated. Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DTL10 000001 (00372165.001)(11/23/05)
051122, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: DTR600 (0808)
PRODUCT NAME: FAST REDUCER
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 3
CHEMICAL FAMILY: SOLVENT

EMERGENCY OVERVIEW:
Extremely flammable. Vapors may cause flash fires. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT. VAPOR GENERATED AT ELEVATED TEMPERATURES IRRITATES EYES, NOSE AND THROAT.HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
ACETONE 67-64-1	15 - 40	X
NAPHTHA 64742-89-8	10 - 30	X
METHYLCYCLOHEXANE 108-87-2	5 - 10	X
N-HEPTANE 142-82-5	5 - 10	X
N-BUTYL ACETATE 123-86-4	5 - 10	X
N-HEXANE 110-54-3	5 - 10	X
ISOHEXANE 107-83-5	3 - 7	X
3-METHYLPENTANE 96-14-0	3 - 7	X
AROMATIC NAPHTHA 64742-95-6	1 - 5	X
TOLUENE 108-88-3	1 - 5	X
1,2,4-TRIMETHYL BENZENE 95-63-6	0.5-1.5	X
XYLENES 1330-20-7	0.1-1.0	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be harmful if absorbed through the skin.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat. Vapor generated at elevated temperatures irritates eyes, nose and throat.

INGESTION:
Harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. N-hexane has caused peripheral neuropathy, characterized by numbness and weakness in the extremities. This product contains toluene. Toluene inhalation in animals (greater than 1500 ppm) and intentional inhalation of toluene-containing products by humans (e.g. glue) has caused adverse fetal development effects. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother. The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: -4 Degrees F (-20 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.5
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.
STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles and full face shield when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.
SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: butyl, neoprene, or nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.
RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
ACETONE 67-64-1	15 - 40	500 ppm	750 ppm	750 ppm	1000 ppm
METHYLCYCLOHEXANE 108-87-2	5 - 10	400 ppm	Not established	400 ppm	Not established
N-HEPTANE 142-82-5	5 - 10	400 ppm	500 ppm	400 ppm	500 ppm
N-BUTYL ACETATE 123-86-4	5 - 10	150 PPM	200 ppm	150 ppm	200 ppm
N-HEXANE 110-54-3	5 - 10	S- 50 ppm	Not established	50 ppm	Not established
TOLUENE 108-88-3	1 - 5	S- 50 ppm	Not established	100 ppm	150 ppm
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	100 ppm	150 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
ACETONE 67-64-1	15 - 40	500 PPM	750 PPM	Not established	Not established
METHYLCYCLOHEXANE 108-87-2	5 - 10	400 ppm	Not established	Not established	Not established
N-HEPTANE 142-82-5	5 - 10	400 ppm	500 ppm	Not established	Not established
N-BUTYL ACETATE 123-86-4	5 - 10	150 ppm	200 ppm	Not established	Not established
N-HEXANE 110-54-3	5 - 10	50 ppm	Not established	Not established	Not established
TOLUENE 108-88-3	1 - 5	50 PPM	Not established	Not established	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES
(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	.751
PHYSICAL STATE:	Liquid
Percent Solids:	.00
Percent Volatile by Volume:	100.000
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	38.0 mmHg
ODOR/APPEARANCE:	Non-viscous liquid with an odor characteristic of the ingredients listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	715
BOILING POINT OR RANGE:	133- 471Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	6.26 (U.S.) / 7.5 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
ACETONE 67-64-1	15 - 40	1.80 g/kg	20.00 g/kg	76.00 g/L. 4 hr.
METHYLCYCLOHEXANE 108-87-2	5 - 10	4.00 g/kg	Not Available	Not Available
N-BUTYL ACETATE 123-86-4	5 - 10	10.77 g/kg	17.60 g/kg	Not Available
AROMATIC NAPHTHA 64742-95-6	1 - 5	8.40 g/kg	3.48 g/kg	5.20 g/L. 4 hr.
TOLUENE 108-88-3	1 - 5	.64 g/kg	8.39 g/kg	12.50 g/L. 4 hr.
1,2,4-TRIMETHYL BENZENE 95-63-6	0.5-1.5	Not Available	Not Available	18.00 g/L. 4 hr.
XYLENES 1330-20-7	0.1-1.0	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Teratogen - Neurotoxin - Embryotoxin - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Paint Related Material
NOS Technical Name:	None
Hazard Class:	3
Subsidiary Class(es):	None
UN Number:	UN1263
Packing Group:	II

USA - RQ Hazardous Substances: Acetone
USA-RQ Hazardous Substance Threshold Ship Weight: Acetone>14293.9 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
ACETONE 67-64-1	15 - 40	5000 lbs	Not Listed	Not Listed
NAPHTHA 64742-89-8	10 - 30	Not Listed	Not Listed	Not Listed
METHYLCYCLOHEXANE 108-87-2	5 - 10	Not Listed	Not Listed	Not Listed
N-HEPTANE 142-82-5	5 - 10	Not Listed	Not Listed	Not Listed
N-BUTYL ACETATE 123-86-4	5 - 10	5000 lbs	Not Listed	Not Listed
N-HEXANE 110-54-3	5 - 10	5000 LBS	Not Listed	Listed
ISOHEXANE 107-83-5	3 - 7	Not Listed	Not Listed	Not Listed
3-METHYLPENTANE 96-14-0	3 - 7	Not Listed	Not Listed	Not Listed
AROMATIC NAPHTHA 64742-95-6	1 - 5	Not Listed	Not Listed	Not Listed
TOLUENE 108-88-3	1 - 5	1000 lbs	Not Listed	Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	0.5-1.5	Not Listed	Not Listed	Listed
XYLENES 1330-20-7	0.1-1.0	100 lbs	Not Listed	Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS
CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
Additional Information
Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department

REASON FOR REVISION: Section 1 has been updated. Section 4 has been updated. Section 8 has been updated. Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DTR600 000004 (00363892.001)(10/10/05)
051006, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: DTR602 (0808)
PRODUCT NAME: REDUCER MED TEMP
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 5
CHEMICAL FAMILY: SOLVENT

EMERGENCY OVERVIEW:
Extremely flammable. Vapors may cause flash fires. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE ABSORBED THROUGH THE SKIN.VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL OR FATAL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
TOLUENE 108-88-3	10 - 30	X
ACETONE 67-64-1	10 - 30	X
AROMATIC HYDROCARBON 64742-94-5	7 - 13	X
NAPHTHA 64742-89-8	7 - 13	X
METHYLCYCLOHEXANE 108-87-2	7 - 13	X
N-HEPTANE 142-82-5	7 - 13	X
AROMATIC NAPHTHA 64742-95-6	3 - 7	X
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	X
NAPHTHALENE 91-20-3	0.5-1.5	X
XYLENES 1330-20-7	0.1-1.0	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be absorbed through the skin.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat.

INGESTION:
Harmful or fatal if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Naphthalene has caused nasal and lung tumors in laboratory animals exposed via inhalation. Absorption of naphthalene into the body by inhalation, ingestion or through the skin can lead to the formation of methemoglobin, thereby imparting a bluish tint to the skin and mucous membranes (cyanosis). Onset of cyanosis may be delayed. Exposure to naphthalene vapors at 15 ppm or above can cause eye irritation, corneal injury, optical neuritis and cataracts. Ingestion of naphthalene can cause hemolytic anemia and hemoglobinuria, especially in glucose-6-phosphate dehydrogenase deficient individuals. This product contains toluene. Toluene inhalation in animals (greater than 1500 ppm) and intentional inhalation of toluene-containing products by humans (e.g. glue) has caused adverse fetal development effects. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 1 Degrees F (-17 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.6
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.
STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.
SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: neoprene rubber or nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.
RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
TOLUENE 108-88-3	10 - 30	S- 50 ppm	Not established	100 ppm	150 ppm
ACETONE 67-64-1	10 - 30	500 ppm	750 ppm	750 ppm	1000 ppm
METHYLCYCLOHEXANE 108-87-2	7 - 13	400 ppm	Not established	400 ppm	Not established
N-HEPTANE 142-82-5	7 - 13	400 ppm	500 ppm	400 ppm	500 ppm
NAPHTHALENE 91-20-3	0.5-1.5	S- 10 ppm	15 ppm	10 ppm	15 ppm
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	100 ppm	150 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
TOLUENE 108-88-3	10 - 30	50 PPM	Not established	Not established	Not established
ACETONE 67-64-1	10 - 30	500 PPM	750 PPM	Not established	Not established
METHYLCYCLOHEXANE 108-87-2	7 - 13	400 ppm	Not established	Not established	Not established
N-HEPTANE 142-82-5	7 - 13	400 ppm	500 ppm	Not established	Not established
NAPHTHALENE 91-20-3	0.5-1.5	10 ppm	15 ppm	Not established	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	.812
PHYSICAL STATE:	Liquid
Percent Solids:	.00
Percent Volatile by Volume:	100.000
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	64.1 mmHg
ODOR/APPEARANCE:	Non-viscous liquid with an odor characteristic of the ingredients listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	317
BOILING POINT OR RANGE:	133- 471Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	6.77 (U.S.) / 8.1 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
TOLUENE 108-88-3	10 - 30	.64 g/kg	8.39 g/kg	12.50 g/L. 4 hr.
ACETONE 67-64-1	10 - 30	1.80 g/kg	20.00 g/kg	76.00 g/L. 4 hr.
AROMATIC HYDROCARBON 64742-94-5	7 - 13	3.20 g/kg	1.69 g/kg	.59 g/L. 4 hr.
METHYLCYCLOHEXANE 108-87-2	7 - 13	4.00 g/kg	Not Available	Not Available
AROMATIC NAPHTHA 64742-95-6	3 - 7	8.40 g/kg	3.48 g/kg	5.20 g/L. 4 hr.
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	Not Available	Not Available	18.00 g/L. 4 hr.
NAPHTHALENE 91-20-3	0.5-1.5	.49 g/kg	20.00 g/kg	Not Available
XYLENES 1330-20-7	0.1-1.0	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Teratogen - Embryotoxin - Blood oxygen capacity - Blood - Carcinogen - Cataract - Eye - Retina - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Paint Related Material
NOS Technical Name:	None
Hazard Class:	3
Subsidiary Class(es):	None
UN Number:	UN1263

Packing Group: II

USA - RQ Hazardous Substances: Toluene, Naphthalene, Xylenes
USA-RQ Hazardous Substance Threshold Ship Weight: Toluene>3511.27 Pounds, Naphthalene>8473.73 Pounds, Xylenes>31246.88 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
TOLUENE 108-88-3	10 - 30	1000 lbs	Not Listed	Listed
ACETONE 67-64-1	10 - 30	5000 lbs	Not Listed	Not Listed
AROMATIC HYDROCARBON 64742-94-5	7 - 13	Not Listed	Not Listed	Not Listed
NAPHTHA 64742-89-8	7 - 13	Not Listed	Not Listed	Not Listed
METHYLCYCLOHEXANE 108-87-2	7 - 13	Not Listed	Not Listed	Not Listed
N-HEPTANE 142-82-5	7 - 13	Not Listed	Not Listed	Not Listed
AROMATIC NAPHTHA 64742-95-6	3 - 7	Not Listed	Not Listed	Not Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	1 - 5	Not Listed	Not Listed	Listed
NAPHTHALENE 91-20-3	0.5-1.5	100 lbs	Not Listed	Listed
XYLENES 1330-20-7	0.1-1.0	100 lbs	Not Listed	Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 1, Subdivision B

STATE/PROVINCIAL REGULATIONS
CALIFORNIA PROP. 65: WARNING: This product contains a chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.
Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
NAPHTHALENE 91-20-3	0.5-1.5	N	N	Y	N	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 11 has been updated. Section 15 has been updated. Section 1 has been updated. Section 3 has been updated. Section 16 has been updated. Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DTR602 000002 (00363895.001)(10/10/05)
051006, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: DXR80 (0808)
PRODUCT NAME: ULTRA URETHANE HARDENER
SYNONYMS: None
ISSUE DATE: 05/02/2006
EDITION NO.: 3
CHEMICAL FAMILY: ISOCYANATE

EMERGENCY OVERVIEW:
Combustible. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke.CAUSES SEVERE EYE IRRITATION.MAY CAUSE MODERATE SKIN IRRITATION.MAY BE ABSORBED THROUGH THE SKIN. PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. MAY CAUSE IRRITATION AND/OR ALLERGIC RESPIRATORY REACTION IN LUNGS. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL IF SWALLOWED.STABLE - HAZARDOUS REACTIONS POSSIBLE AT EXTREMELY HIGH TEMPERATURES/PRESSURES.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
HEXANE-1,6-DI-ISOCYANATE POLYMER 28182-81-2	60- 100	X
1-METHOXY-2-PROPYL ACETATE 108-65-6	5 - 10	X
N-BUTYL ACETATE 123-86-4	1 - 5	X
AROMATIC NAPHTHA 64742-95-6	1 - 5	X
1,2,4-TRIMETHYL BENZENE 95-63-6	0.5-1.5	X
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	X
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	X
XYLENES 1330-20-7	0.1-1.0	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be absorbed through the skin. Prolonged or repeated contact may cause an allergic skin reaction.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled. May cause irritation and/or allergic respiratory reaction in lungs. Vapor irritates eyes, nose, and throat.

INGESTION:
Harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Do not use if you have chronic (long-term) lung or breathing problems, or if you have ever had a reaction to isocyanates.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.
Prolonged inhalation of an ingredient(s) in this product may cause lung sensitivity leading to pneumonitis. This product contains isocyanates. Inhalation may cause a burning sensation of the nose, throat and lungs. Allergic respiratory reactions to these materials are characterized by asthma-like symptoms such as chest tightness, wheezing, shortness of breath and coughing. These symptoms may follow repeated exposure or a single massive exposure and may be delayed. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 113 Degrees F (45 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 1.4
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class II combustible liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.
STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class II combustible liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles and full face shield when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.
SKIN/GLOVES:
Wear protective clothing sufficient to cover exposed skin surfaces. For applications where skin contact is likely and impermeable clothing is necessary, select clothing constructed of: neoprene rubber or nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. The decision whether to clean or discard contaminated clothing should be based on the chemicals contaminating them. Some chemicals can cause skin irritation, sensitization or other health effects if the cleaning process does not remove all traces of them. Consult a safety professional to determine whether clothing contaminated with this product can be safely cleaned and reused.
RESPIRATOR:
Where vapors or overspray are present, use a NIOSH approved, positive-pressure, air- supplied respirator for the entire time of spraying and until all vapors and mists are gone. Follow the respirator manufacturer's directions for respirator use. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
N-BUTYL ACETATE 123-86-4	1 - 5	150 PPM	200 ppm	150 ppm	200 ppm
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	0.005 ppm	Not established	Not established	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	100 ppm	150 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
HEXANE-1,6-DI-ISOCYANATE POLYMER 28182-81-2	60- 100	Not established	Not established	0.5 mg/m^3	1 mg/m^3
1-METHOXY-2-PROPYL ACETATE 108-65-6	5 - 10	50 PPM	Not established	100 ppm	Not established
N-BUTYL ACETATE 123-86-4	1 - 5	150 ppm	200 ppm	Not established	Not established
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	C- 0.02 PPM	Not established	Not established	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES
(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.110
PHYSICAL STATE:	Liquid
Percent Solids:	83.39
Percent Volatile by Volume:	20.170
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	4.7 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	51
BOILING POINT OR RANGE:	255- 351Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	9.25 (U.S.) / 11.1 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable but may undergo hazardous reactions at extremely high temperatures and pressures.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents. Avoid water and alcohols.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Hydrogen cyanide - Lower molecular weight polymer fractions - Traces of isocyanate - Oxides of nitrogen

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
1-METHOXY-2-PROPYL ACETATE 108-65-6	5 - 10	8.53 g/kg	5.00 g/kg	Not Available
N-BUTYL ACETATE 123-86-4	1 - 5	10.77 g/kg	17.60 g/kg	Not Available
AROMATIC NAPHTHA 64742-95-6	1 - 5	8.40 g/kg	3.48 g/kg	5.20 g/L. 4 hr.
1,2,4-TRIMETHYL BENZENE 95-63-6	0.5-1.5	Not Available	Not Available	18.00 g/L. 4 hr.
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	.71 g/kg	.57 g/kg	.15 g/L. 4 hr.
XYLENES 1330-20-7	0.1-1.0	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Embryotoxin - Reproductive - Respiratory sensitizer - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	Possible reproductive hazard. An ingredient(s) in this product has adversely affected reproductive tissues and fetal development in test animals.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL
Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint

NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: III

USA - RQ Hazardous Substances: None
USA-RQ Hazardous Substance Threshold Ship Weight: None
Marine Pollutant Name: None
USA and Canada Shipments Only- Combustible Liquid Exception: Non-bulk (<=119 Gallons/450 L) ground shipments can be reclassified to "not regulated" for transportation. Bulk shipments - USA Only (> 119 Gallons/450 L) can be reclassified to a Combustible Liquid.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
HEXANE-1,6-DI-ISOCYANATE POLYMER 28182-81-2	60- 100	Not Listed	Not Listed	Not Listed
1-METHOXY-2-PROPYL ACETATE 108-65-6	5 - 10	Not Listed	Not Listed	Not Listed
N-BUTYL ACETATE 123-86-4	1 - 5	5000 lbs	Not Listed	Not Listed
AROMATIC NAPHTHA 64742-95-6	1 - 5	Not Listed	Not Listed	Not Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	0.5-1.5	Not Listed	Not Listed	Listed
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	100 LBS	Not Listed	Not Listed
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	Not Listed	Not Listed	Not Listed
XYLENES 1330-20-7	0.1-1.0	100 lbs	Not Listed	Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 3 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS
Additional Information
Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 3 21
HMIS Rating: 3*21

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
DXR80 000002 (00252935.001)(01/21/03)
020131, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: ESH200 (0808)
PRODUCT NAME: SINGLE STAGE HARDENER
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 2
CHEMICAL FAMILY: ISOCYANATE

EMERGENCY OVERVIEW:
Combustible. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. MAY CAUSE IRRITATION AND/OR ALLERGIC RESPIRATORY REACTION IN LUNGS. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL IF SWALLOWED.STABLE - HAZARDOUS REACTIONS POSSIBLE AT EXTREMELY HIGH TEMPERATURES/PRESSURES.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
HEXANE-1,6-DI-ISOCYANATE POLYMER 28182-81-2	60- 100	X
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.
SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.
SKIN ABSORPTION:
Skin absorption not expected to occur. Prolonged or repeated contact may cause an allergic skin reaction.
INHALATION:
Vapor and/or spray mist may be harmful if inhaled. May cause irritation and/or allergic respiratory reaction in lungs. Vapor irritates eyes, nose, and throat.
INGESTION:
Harmful if swallowed.
SIGNS & SYMPTOMS OF OVEREXPOSURE:
Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Do not use if you have chronic (long-term) lung or breathing problems, or if you have ever had a reaction to isocyanates.
CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Prolonged inhalation of an ingredient(s) in this product may cause lung sensitivity leading to pneumonitis. This product contains isocyanates. Inhalation may cause a burning sensation of the nose, throat and lungs. Allergic respiratory reactions to these materials are characterized by asthma-like symptoms such as chest tightness, wheezing, shortness of breath and coughing. These symptoms may follow repeated exposure or a single massive exposure and may be delayed.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.
EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.
SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.
INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.
INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 168 Degrees F (76 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: Not Available.
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IIIA combustible liquid fires.
PROTECTION OF FIREFIGHTERS:
Water spray may be ineffective. Water spray may be used to cool closed containers that are exposed to extreme heat. If water is used, fog nozzles are preferable. Firefighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IIIA combustible liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT
EYES:
Wear chemical-type splash goggles and full face shield when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.
SKIN/GLOVES:
Wear protective clothing sufficient to cover exposed skin surfaces. For applications where skin contact is likely and impermeable clothing is necessary, select clothing constructed of: butyl rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. The decision whether to clean or discard contaminated clothing should be based on the chemicals contaminating them. Some chemicals can cause skin irritation, sensitization or other health effects if the cleaning process does not remove all traces of them. Consult a safety professional to determine whether clothing contaminated with this product can be safely cleaned and reused.
RESPIRATOR:
Where vapors or overspray are present, use a NIOSH approved, positive-pressure, air- supplied respirator for the entire time of spraying and until all vapors and mists are gone. Follow the respirator manufacturer's directions for respirator use. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.
GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS

If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	0.005 ppm	Not established	Not established	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
HEXANE-1,6-DI-ISOCYANATE POLYMER 28182-81-2	60- 100	Not established	Not established	0.5 mg/m^3	1 mg/m^3
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	C- 0.02 PPM	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.142
PHYSICAL STATE:	Liquid
Percent Solids:	89.03
Percent Volatile by Volume:	13.200
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	.7 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	12
BOILING POINT OR RANGE:	336- 338Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	9.52 (U.S.) / 11.4 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable but may undergo hazardous reactions at extremely high temperatures and pressures.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents. Avoid water and alcohols.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Traces of isocyanate - Oxides of

nitrogen - Hydrogen cyanide - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	.71 g/kg	.57 g/kg	.15 g/L. 4 hr.

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Respiratory sensitizer - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: NOT AVAILABLE
NOS Technical Name: NOT AVAILABLE
Hazard Class: N.A.
Subsidiary Class(es): N.A.
UN Number: N.A.
Packing Group: N.A.

USA - RQ Hazardous Substances: NOT AVAILABLE
USA-RQ Hazardous Substance Threshold Ship Weight: NOT AVAILABLE
Marine Pollutant Name: NOT AVAILABLE

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
HEXANE-1,6-DI-ISOCYANATE POLYMER 28182-81-2	60- 100	Not Listed	Not Listed	Not Listed
HEXAMETHYLENE-DI-ISOCYANATE 822-06-0	0.1-1.0	100 LBS	Not Listed	Not Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 3 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS
Additional Information
Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 3 21
HMIS Rating: 3*21

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 5 has been updated. Section 9 has been updated.
Updated MSDS format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
ESH200 000003 (00327598.001)(02/02/05)
050201, 000, 0808

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (740) 363-9610 (DELAWARE, OH) 8:00 a.m. - 5:00 p.m. EST
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: ESSS9000 (0808)
PRODUCT NAME: BLACK
SYNONYMS: None
ISSUE DATE: 08/15/2006
EDITION NO.: 4
CHEMICAL FAMILY: Acrylic Polyester

EMERGENCY OVERVIEW:
Extremely flammable. Vapors may cause flash fires. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE ABSORBED THROUGH THE SKIN.VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
ACETONE 67-64-1	10 - 30	X
N-BUTYL ACETATE 123-86-4	7 - 13	X
METHYL (N-AMYL) KETONE 110-43-0	5 - 10	X
1-METHOXY-2-PROPYL ACETATE 108-65-6	3 - 7	X
CARBON BLACK 1333-86-4	0.5-1.5	X
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.
SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.
SKIN ABSORPTION:
May be absorbed through the skin.
INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat.
INGESTION:
Harmful if swallowed.
SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.
CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. An ingredient in this product has caused fetal toxicity in experimental animals. The significance of these findings for humans is unknown. The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.
EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.
SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.
INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.
INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 14 Degrees F (-10 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 2.5
AUTOIGNITION TEMPERATURE:
Not Available.

EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles and full face shield when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: neoprene rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
ACETONE 67-64-1	10 - 30	500 ppm	750 ppm	750 ppm	1000 ppm
N-BUTYL ACETATE 123-86-4	7 - 13	150 PPM	200 ppm	150 ppm	200 ppm
METHYL (N-AMYL) KETONE 110-43-0	5 - 10	50 ppm	Not established	100 ppm	Not established
CARBON BLACK 1333-86-4	0.5-1.5	3.5 mg/m^3	Not established	3.5 mg/m^3	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
ACETONE 67-64-1	10 - 30	500 PPM	750 PPM	Not established	Not established
N-BUTYL ACETATE 123-86-4	7 - 13	150 ppm	200 ppm	Not established	Not established
METHYL (N-AMYL) KETONE 110-43-0	5 - 10	25 ppm	Not established	Not established	Not established
1-METHOXY-2-PROPYL ACETATE 108-65-6	3 - 7	50 PPM	Not established	100 ppm	Not established
CARBON BLACK 1333-86-4	0.5-1.5	3.5 mg/m^3	Not established	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit (1989 Vacated values); IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Absorption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	.971
PHYSICAL STATE:	Liquid
Percent Solids:	54.91
Percent Volatile by Volume:	52.380
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	9.3 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.

VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	507
BOILING POINT OR RANGE:	133 - 351Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	8.09 (U.S.) / 9.7 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
ACETONE 67-64-1	10 - 30	1.80 g/kg	20.00 g/kg	76.00 g/L. 4 hr.
N-BUTYL ACETATE 123-86-4	7 - 13	10.77 g/kg	17.60 g/kg	Not Available
METHYL (N-AMYL) KETONE 110-43-0	5 - 10	1.60 g/kg	10.21 g/kg	Not Available
1-METHOXY-2-PROPYL ACETATE 108-65-6	3 - 7	8.53 g/kg	5.00 g/kg	Not Available
CARBON BLACK 1333-86-4	0.5-1.5	15.40 g/kg	3.00 g/kg	Not Available

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Carcinogen - Embryotoxin - Reproductive - Fetotoxin - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
CARBON BLACK 1333-86-4	0.5-1.5	This product contains carbon black which has been rated an IARC 2B carcinogen due to animal data.
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	Possible reproductive hazard. An ingredient(s) in this product has adversely affected reproductive tissues and fetal development in test animals.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Paint
NOS Technical Name:	None
Hazard Class:	3
Subsidiary Class(es):	None
UN Number:	UN1263
Packing Group:	II

USA - RQ Hazardous Substances: Acetone
USA-RQ Hazardous Substance Threshold Ship Weight: Acetone>27412.31 Pounds
Marine Pollutant Name: None
USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
ACETONE 67-64-1	10 - 30	5000 lbs	Not Listed	Not Listed
N-BUTYL ACETATE 123-86-4	7 - 13	5000 lbs	Not Listed	Not Listed
METHYL (N-AMYL) KETONE 110-43-0	5 - 10	Not Listed	Not Listed	Not Listed
1-METHOXY-2-PROPYL ACETATE 108-65-6	3 - 7	Not Listed	Not Listed	Not Listed
CARBON BLACK 1333-86-4	0.5-1.5	Not Listed	Not Listed	Not Listed
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	Not Listed	Not Listed	Not Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS
CALIFORNIA PROP. 65: WARNING: This product contains a chemical known to the State of California to cause cancer.
Additional Information

Material/ CAS Number	Percent	IARC Group 1(Known Human Carc.)	IARC Group 2A (Probable Carc.)	IARC 2B (Suspected Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
CARBON BLACK 1333-86-4	0.5-1.5	N	N	Y	N	N	Y

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 11 has been updated. Section 3 has been updated. Date. Edition.
Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
ESSS9000 000002 (00420470.001)(08/14/06)
060814, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (740) 363-9610 (DELAWARE, OH) 8:00 a.m. - 5:00 p.m. EST

PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: ESSS903653 (0808)
PRODUCT NAME: FACTORY PACK WHITE
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 5
CHEMICAL FAMILY: Acrylic Polyester

EMERGENCY OVERVIEW:

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE ABSORBED THROUGH THE SKIN. PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT. SANDING AND GRINDING DUSTS MAY BE HARMFUL IF INHALED.HARMFUL IF SWALLOWED. DRIED FILM OF THIS PRODUCT MAY BE HARMFUL IF CHEWED OR SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous	
TITANIUM DIOXIDE 13463-67-7	10 - 30	X	
1-METHOXY-2-PROPYL ACETATE 108-65-6	5 - 10	X	
N-BUTYL ACETATE 123-86-4	3 - 7	X	
ACETONE 67-64-1	3 - 7	X	
BARIUM SULFATE 7727-43-7	1 - 5	X	
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	X	
AROMATIC NAPHTHA 64742-95-6	1 - 5	X	
ZINC SULFIDE 1314-98-3	1 - 5	X	
PARACHLOROBENZOTRIFLUORIDE 98-56-6	1 - 5	X	
XYLENES 1330-20-7	0.1-1.0	X	
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	X	
(As Zinc Cmpnds) 1314-98-3	*	X	See Sections 8 and 15 for information.

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be absorbed through the skin. Prolonged or repeated contact may cause an allergic skin reaction.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat. Sanding and grinding dusts may be harmful if inhaled.

INGESTION:
Harmful if swallowed. Dried film of this product may be harmful if chewed or swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Prolonged exposure to an ingredient(s) in this product may cause kidney and/or liver damage. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother.

The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Do Not induce vomiting. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 34 Degrees F (1 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 2.4
AUTOIGNITION TEMPERATURE:
Not Available.

EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles and full face shield when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

SKIN/GLOVES:
Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: neoprene rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
TITANIUM DIOXIDE 13463-67-7	10 - 30	10 mg/m³	Not established	10 mg/m³	Not established
N-BUTYL ACETATE 123-86-4	3 - 7	150 PPM	200 ppm	150 ppm	200 ppm
ACETONE 67-64-1	3 - 7	500 ppm	750 ppm	750 ppm	1000 ppm
BARIUM SULFATE 7727-43-7	1 - 5	10 mg/m³	Not established	R- 5 mg/m³	Not established
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	50 ppm	Not established	100 ppm	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	100 ppm	150 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
TITANIUM DIOXIDE 13463-67-7	10 - 30	10 MG/m³	Not established	Not established	Not established
1-METHOXY-2-PROPYL ACETATE 108-65-6	5 - 10	50 PPM	Not established	100 ppm	Not established
N-BUTYL ACETATE 123-86-4	3 - 7	150 ppm	200 ppm	Not established	Not established
ACETONE 67-64-1	3 - 7	500 PPM	750 PPM	Not established	Not established
BARIUM SULFATE 7727-43-7	1 - 5	10 MG/m³	Not established	Not established	Not established
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	25 ppm	Not established	Not established	Not established
PARACHLOROBENZOTRIFLUORIDE 98-56-6	1 - 5	Not established	Not established	25 PPM	Not established
XYLENES 1330-20-7	0.1-1.0	100 ppm	150 ppm	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.277
PHYSICAL STATE:	Liquid
Percent Solids:	69.70
Percent Volatile by Volume:	43.690
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	66.8 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	251
BOILING POINT OR RANGE:	133 - 401Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	10.64 (U.S.) / 12.7 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Oxides of sulfur - Hydrochloric acid - Oxides of barium - Chlorinated products

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
TITANIUM DIOXIDE 13463-67-7	10 - 30	10.00 g/kg	Not Available	Not Available
1-METHOXY-2-PROPYL ACETATE 108-65-6	5 - 10	8.53 g/kg	5.00 g/kg	Not Available
N-BUTYL ACETATE 123-86-4	3 - 7	10.77 g/kg	17.60 g/kg	Not Available
ACETONE 67-64-1	3 - 7	1.80 g/kg	20.00 g/kg	76.00 g/L. 4 hr.
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	1.60 g/kg	10.21 g/kg	Not Available
AROMATIC NAPHTHA 64742-95-6	1 - 5	8.40 g/kg	3.48 g/kg	5.20 g/L. 4 hr.
PARACHLOROBENZOTRIFLUORIDE 98-56-6	1 - 5	13.00 g/kg	2.70 g/kg	33.08 g/L. 4 hr.
XYLENES 1330-20-7	0.1-1.0	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Carcinogen - Reproductive - Kidney - Liver - Embryotoxin - Brain - Central nervous system - Lung

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
TITANIUM DIOXIDE 13463-67-7	10 - 30	This product contains titanium dioxide. Animals inhaling massive quantities of titanium dioxide dust in a long-term study developed lung tumors. Studies with humans involved in manufacture of this pigment indicate no increased risk of cancer from exposure.
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	Possible reproductive hazard. An ingredient(s) in this product has adversely affected reproductive tissues and fetal development in test animals.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS

Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint
NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: II

USA - RQ Hazardous Substances: None
USA-RQ Hazardous Substance Threshold Ship Weight: None
Marine Pollutant Name: None

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
TITANIUM DIOXIDE 13463-67-7	10 - 30	Not Listed	Not Listed	Not Listed
1-METHOXY-2-PROPYL ACETATE 108-65-6	5 - 10	Not Listed	Not Listed	Not Listed
N-BUTYL ACETATE 123-86-4	3 - 7	5000 lbs	Not Listed	Not Listed
ACETONE 67-64-1	3 - 7	5000 lbs	Not Listed	Not Listed
BARIUM SULFATE 7727-43-7	1 - 5	Not Listed	Not Listed	Not Listed
METHYL (N-AMYL) KETONE 110-43-0	1 - 5	Not Listed	Not Listed	Not Listed
AROMATIC NAPHTHA 64742-95-6	1 - 5	Not Listed	Not Listed	Not Listed
ZINC SULFIDE 1314-98-3	1 - 5	Not Listed	Not Listed	Not Listed
PARACHLOROBENZOTRIFLUORIDE 98-56-6	1 - 5	Not Listed	Not Listed	Not Listed
XYLENES 1330-20-7	0.1-1.0	100 lbs	Not Listed	Listed
2-METHOXY-1-PROPYL ACETATE 70657-70-4	0.1-1.0	Not Listed	Not Listed	Not Listed
(As Zinc Cmpnds) 1314-98-3	*	Not Listed	Not Listed	Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS
Additional Information
Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 2 30
HMIS Rating: 2*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 2 has been updated. Changes to this section may also result in changes in sections 8, 11 and/or 15. Date. Edition.

Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
ESSS903653000006 (00375260.001)(12/13/05)
051213, 000, 0808

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Refinish Products
19699 Progress Drive
Strongsville, OH 44149

EMERGENCY PHONE NUMBERS (24 hours/day): **(412) 434-4515 (U.S.)**
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (440) 572-2800
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: ESX510 (0808)
PRODUCT NAME: STANDARD ACTIVATOR
SYNONYMS: None
ISSUE DATE: 04/14/2006
EDITION NO.: 3
CHEMICAL FAMILY: ACETYLACETONE

EMERGENCY OVERVIEW:
Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone.CAUSES EYE IRRITATION. MAY CAUSE SKIN BURNS. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.VAPOR AND/OR SPRAY MIST HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT.HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
PARACHLOROBENZOTRIFLUORIDE 98-56-6	40 - 70	X
ACETYLACETONE 123-54-6	10 - 30	X
ACETONE 67-64-1	7 - 13	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.
SKIN CONTACT:
May cause skin burns. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.
SKIN ABSORPTION:
May be harmful if absorbed through the skin.
INHALATION:
Vapor and/or spray mist harmful if inhaled. Vapor irritates eyes, nose, and throat.
INGESTION:
Harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:
Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.
CHRONIC OVEREXPOSURE EFFECTS
Avoid long-term and repeated contact.
Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.
Prolonged exposure to an ingredient(s) in this product may cause kidney and/or liver damage.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.
EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.
SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.
INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.
INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Do Not induce vomiting. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: 88 Degrees F (31 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: 2.6
AUTOIGNITION TEMPERATURE:
Not Available.
EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IC flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

PROTECTION OF FIREFIGHTERS:
Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:
Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IC flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

SKIN/GLOVES:
Wear protective clothing sufficient to cover exposed skin surfaces. For applications where skin contact is likely and impermeable clothing is necessary, select clothing constructed of: impermeable material. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:
Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
ACETONE 67-64-1	7 - 13	500 ppm	750 ppm	750 ppm	1000 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
PARACHLOROBENZOTRIFLUORIDE 98-56-6	40 - 70	Not established	Not established	25 PPM	Not established
ACETYLACETONE 123-54-6	10 - 30	Not established	Not established	20 PPM	Not established
ACETONE 67-64-1	7 - 13	500 PPM	750 PPM	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Aborption; R-Respirable Dust]
Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES
(FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.145
PHYSICAL STATE:	Liquid
Percent Solids:	.29
Percent Volatile by Volume:	99.680
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	94.3 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	150
BOILING POINT OR RANGE:	133- 282Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	9.54 (U.S.) / 11.4 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.
CONDITIONS TO AVOID:
None Known.
INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.
HAZARDOUS POLYMERIZATION:
None Known.
HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon dioxide - Carbon monoxide - Hydrochloric acid - Chlorinated products - Hydrogen fluoride - Fluorinated products

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
PARACHLOROBENZOTRIFLUORIDE 98-56-6	40 - 70	13.00 g/kg	2.70 g/kg	33.08 g/L. 4 hr.
ACETYLACETONE 123-54-6	10 - 30	.55 g/kg	.81 g/kg	Not Available
ACETONE 67-64-1	7 - 13	1.80 g/kg	20.00 g/kg	76.00 g/L. 4 hr.

CHRONIC TOXICITY
Ingredient Target Organ/Chronic Effects:
- Blood - Nasal lining - Thymus - Brain - Central nervous system - Lung - Kidney - Liver

Mutagenicity Toxicity:
This has not been tested for this product.
Reproductive Toxicity:
This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
ACETYLACETONE 123-54-6	10 - 30	This product contains 2,4-pentadione. Animals repeatedly inhaling high concentrations (up to 650 ppm) had the following toxic effects: decreased body weight, nasal lining thickening, anemia, brain/thymus degeneration and death (650 ppm level only). The low odor threshold, unpleasant odor and nauseating effects at levels of a few ppm should provide adequate warning to prevent overexposure in the wokplace.

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS
Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE
Mobility: No information available.
Biodegradation: No information available.
Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.
Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.
Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Paint
NOS Technical Name: None
Hazard Class: 3
Subsidiary Class(es): None
UN Number: UN1263
Packing Group: III

USA - RQ Hazardous Substances: None
USA-RQ Hazardous Substance Threshold Ship Weight: None
Marine Pollutant Name: None

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS
U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.
FEDERAL REGULATIONS
US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
PARACHLOROBENZOTRIFLUORIDE 98-56-6	40 - 70	Not Listed	Not Listed	Not Listed
ACETYLACETONE 123-54-6	10 - 30	Not Listed	Not Listed	Not Listed
ACETONE 67-64-1	7 - 13	5000 lbs	Not Listed	Not Listed

SARA 311/312
Health (acute): Yes
Health (chronic): Yes
Fire (flammable): Yes
Pressure: No
Reactivity: No
WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 1, Subdivision B - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS
Additional Information
Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems
NFPA Rating: 3 30
HMIS Rating: 3*30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department
REASON FOR REVISION: Section 9 has been updated. Date. Edition. Updated MSDS
format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.
Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.
ESX510 000002 (00334031.001)(03/16/05)
050315, 000, 0808

*** END OF MSDS ***