

## What is a toxic substance and why work to eliminate or reduce toxics use?

Toxic substances are elements and compounds that can cause serious and sometimes lasting damage to living tissue. In manufacturing, toxic substances can be found throughout the manufacturing process in such products as solvents, wash fluid, and even the final products themselves. Some commonly used toxic industrial compounds and elements include chlorine, lead, cyanide, and perchloroethylene. Reducing or eliminating toxic substance use in manufacturing processes protects your workers and the public and reduces costs to your business.



Would you like assistance to reduce toxic or hazardous substances in your workplace? The Idaho Department of Environmental Quality can assist you in finding alternative products and reducing the amount of hazardous materials that you use!

Contact Ben Jarvis, Pollution Prevention Coordinator at 208-373-0146, or [ben.jarvis@deq.idaho.gov](mailto:ben.jarvis@deq.idaho.gov).

## For More Information

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## DEQ Web Resources

#### Pollution Prevention

[www.deq.idaho.gov/pollution-prevention](http://www.deq.idaho.gov/pollution-prevention)

#### Technical Assistance

[www.deq.idaho.gov/p2-technical-assistance](http://www.deq.idaho.gov/p2-technical-assistance)



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# Toxic Substances and Your Company



Courtesy of Idaho Tourism

*Reducing toxics in your manufacturing processes can help your business*



Idaho Department of Environmental Quality  
[www.deq.idaho.gov](http://www.deq.idaho.gov)



## What are the benefits of reducing toxics?

### Human, Terrestrial, and Aquatic Health



Toxic substances can significantly impact human, terrestrial, and aquatic health. Each toxic substance is unique in its impact to human health, based on concentrations and exposure.

Short-term exposure to concentrated doses of highly toxic substances, such as cyanide, can result in respiratory distress, chemical burns, nervous system damage, and even death.

Long-term exposure to smaller, less concentrated amounts of various types of toxic substances, such as perchloroethylene, mercury, and brominated compounds, are linked to the following health problems:

- Cancer
- Endocrine disruptions such as infertility
- Autoimmune diseases such as ulcerative colitis
- Nervous system damage
- Organ damage

### Safety

Limiting toxic substance use and exposure can reduce health risks to workers and the public.

Despite safety precautions, accidents happen. By reducing toxic substance use, your company can significantly decrease the risk and harmful health effects an accident poses to workers or the public.



### Money Savings

Toxic substance use comes with costs that could be mitigated by using less-toxic products or alternative practices. Liability insurance, cleanup, regulatory, disposal, and management costs add to your final product's price. Companies implementing safer chemical alternatives report significant cost savings.



Less-toxic chemicals and alternative processes are available that achieve the same or similar results without incurring the regulatory costs or risks associated with toxic product use.

### Reduced Regulatory Oversight

Toxic substances are heavily regulated because they can cause lasting harm to human, terrestrial, or aquatic life. Regulation compliance is time-consuming and costly, as is acquiring permits for material use and disposal in approved facilities, hiring approved material transporters, and training workers to handle toxic substances. None of these activities add value to the end product, but instead add costs to your product. In a globally competitive market, however, alternative methods to reduce the time and cost of these activities are valuable. By switching to less-toxic chemicals or processes that don't use harmful chemicals, you can reduce regulatory oversight and the time and money used to manage toxic substances.

## How can I reduce the use or impact of toxics?

### Switch to alternative products or processes.

The Idaho Department of Environmental Quality's Pollution Prevention (P2) Program can help you identify alternative processes and products and can direct you to resources describing alternative practices and products for many different industrial and commercial uses.

### Implement in-process recycling.

Currently, some toxic substances do not have less-toxic alternative products or processes. Consider methods to recapture and reuse these substances, which can reduce hazardous waste generated at your facility and cut down on disposal and regulatory management costs and inventory purchases.

### Connect with an industrial materials exchange.

To limit overall toxic substance generation, connect with an industrial materials exchange. Like a classified newspaper page, these exchanges help industries network to dispose of excess or leftover inventory and provide other industries with needed resources. While small communities might lack such exchanges, many larger cities may have access to an industrial materials exchange.

### Consider a whole product life cycle approach to toxics reduction.

Toxic substances used in your facility might not be the only ones used in manufacturing your final product. Consider where your inventory is sourced from and the processes used to manufacture various inputs to your final product. Connect with the Green Suppliers Network at <http://www.greensuppliers.gov/index.html> to find suppliers who use environmentally friendly and less-toxic processes in their facilities and products.