



Hazard Alert

Topic Summary:

Fatal Hazards - Flammable Solvents

Employers: Protect yourself and your workers. Flammable solvents can cause fire, injury and death if not handled properly. Please take time to read this important information and share it with employees who handle flammable solvents.

Important

Lacquer, primer, contact cement and other flammable solvents can cause fire, injuries, and death in workplaces. In 2001, three workplace incidents resulted in death or serious injury. In each case a flammable material, with hazards clearly identified on the container label and material safety data sheets (MSDS), was used in a manner prohibited by the manufacturer's instructions and WISHA rules.

- March 2001: A painter was spraying lacquer on a homeowner's built-in bookcase. Plastic sheeting was used to isolate the area and a portable halogen lamp was used to light the enclosed space. Heat from the lamp caused an explosion, setting the home on fire and burning the worker over 75 percent of his body. The lacquer MSDS stated that the material was flammable and to keep away from heat, sparks and open flames.
- August 2001: A painter was applying primer to the walls of a 500 sq. ft. studio apartment. The doors and windows had been closed and sealed with plastic to prevent over-spray. The painter was found dead in the afternoon on the floor of the apartment. The MSDS for the primer stated that the product should be used with open doors and windows to provide adequate ventilation.
- December 2001: Father and son contractors were installing a bathtub surround in a home using contact cement. The material was rolled onto the sheeting from an open five-gallon bucket. A fire occurred, ignited by the gas hot water heater pilot light. The son received burns over 10 percent of his body. The father died the following day as a result of severe burns. The contact cement label, on the lid of the can, specifically stated to turn off gas to the home prior to using the product.

Recommendations for Your Safety

Follow applicable WISHA rules, and manufacturer warnings and instructions for use and control of hazards that are listed on the product label or material safety data sheet (MSDS).

Control Sources of Ignition

Chemical solvents/coatings that could produce a flammable atmosphere should never be used where a spark or source of ignition could be produced such as lighting or portable heaters. Be sure to put out pilot lights of any gas appliances or turn off the gas main to the building. Never smoke in the area where flammable materials are used.

Use Ventilation

Never use flammable materials in enclosed areas with doors and windows closed or sealed. At a minimum, have doors and/or windows open to allow ventilation. With materials having a flash point below 100 degrees Fahrenheit, mechanical ventilation that is approved for explosive environments is recommended.

Substitute with a less hazardous material

As a rule, there are numerous products available that do not contain flammable solvents. These products are less harmful to human health and the environment and generally have no special disposal requirements for any unused portion or waste.

Use Personal Protective Equipment (PPE)

Whenever a chemical product is used, you must do a hazard analysis to determine the appropriate PPE to use while working with the material. The chemical's MSDS can be helpful in this process.

Read Material Safety Data Sheets and Follow Recommendations

Each MSDS will have a health hazard section and a controls section that includes information on PPE, such as a respirator, to wear when handling the chemical. Respirators must be NIOSH (National Institute for Occupational Safety and Health) approved, appropriate for the chemical, and suitable for the potential exposure levels. You should consult with a health and safety professional to help determine the appropriate PPE to use when handling chemicals.

How Can I Get Help from L&I?

The L&I office in your area has Industrial Hygienists who can assist you with specific questions. Please call your area L&I office and ask for an Industrial Hygiene consultant. You may also call 1-800-4BE-SAFE (1-800-423-7233) for other WISHA Services information.

Region	Counties	Telephone Number
1	Island, San Juan, Skagit, Snohomish, Whatcom	425-290-1300
2	King	206-515-2800
3	Clallam, Jefferson, Kitsap, Pierce	253-596-3800
4	Clark, Cowlitz, Grays Harbor, Klickitat, Lewis, Mason, Pacific, Skamania, Thurston, Wahkiakum	360-902-5799
5	Adams, Benton, Chelan, Columbia, Douglas, Franklin, Grant, Kittitas, Okanogan, Walla Walla, Yakima	509-454-3700 Toll-free 1-800-354-5423
6	Southeast Adams, Asotin, Ferry, Garfield, Lincoln, Stevens, Pend Oreille, Spokane, Whitman	509-324-2600 Toll-free: 1-800-509-8847

Information Available on the Web

WISHA Rules

Core Rules: www.lni.wa.gov/safety/rules/chapter/800/ (See WAC 296-800-170)

Other rules may apply.