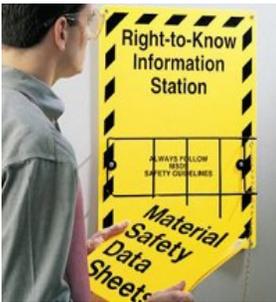


## Material Safety Data Sheets (MSDS)

### Oregon OSHA Fact Sheet



The Material Safety Data Sheet (MSDS) is a detailed information bulletin prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, and control measures. In-

formation on an MSDS aids in the selection of safe products and helps prepare employers and employees to respond effectively to daily exposure situations as well as to emergency situations.

#### EMPLOYER RESPONSIBILITIES

Employers must ensure that each employee has a basic knowledge of how to find information on an MSDS and how to properly make use of that information. Employers also must ensure the following:

- Complete and accurate MSDS are made available during each work shift to employees when they are in their work areas.
- Information is provided for each hazardous chemical.
- Provide training on their content.

#### EMPLOYEE RIGHTS

- Your workplace is required to have Material Safety Data Sheets available for every hazardous chemical or substance you use or encounter as a part of your job.
- These must be readily available for employee review at all times you are in the work place. In other words, they cannot be locked in an office or filing cabinet to which you do not have access.
- If you request to see an MSDS for a product you use at work, your employer must provide it within one working day.

#### WHEN ARE MSDS REQUIRED?

Oregon OSHA looks at the usage of materials in a workplace in two ways. There is consumer usage and occupational usage.

- Consumer usage of a product is when you use the product in a similar manner and frequency as you would use the product in your home or garage (consumer products used in a consumer fashion).
- Occupational usage occurs when employees use a chemical to accomplish the duties of their job, either more frequently or in greater quantity than a consumer would use, or when the product is used in a manner for which it was not originally designed.

#### For example:

- If you are using Windex to clean your windows at work and you use a container over a six-week period cleaning three windows, you probably do not need an MSDS.
- If you are depleting a container of Windex weekly cleaning an entire bank of windows you most likely will need an MSDS and must train your employees on its contents.
- If you are using the Windex to clean auto parts instead of windows you would need to train employees on the MSDS information.



#### WHERE DO EMPLOYERS OBTAIN MSDS FORMS?

Chemical manufacturers or importers provide MSDS assessing the hazards of chemicals with the first shipment of any hazardous chemical product which they produce or import, and upon request. MSDS may also be obtained from the distributors that sell the materials or from resources found on the Internet.

*If you do not know where the MSDS for your area are kept, or have any questions about MSDS, ask your Supervisor!*



**MSDS, continued:****HOW ARE MSDS USED?**

Employers use the MSDS to provide their employees that are exposed to hazardous chemicals with effective information and training. Employees must be trained on the physical and health hazards of the chemicals in the workplace, the measures they can take to protect themselves, and emergency procedures for cleaning up a spill or release of chemicals.

**WHAT INFORMATION IS REQUIRED ON AN MSDS?**

MSDS must be written in English and contain the following information:

- **Chemical Identity:** Name of the product including the common name if one exists
- **Manufacturer's Information:** Name, address, phone number, and emergency phone number of the manufacturer
- **Hazardous Ingredients/Identity Information:** List of hazardous chemicals. Depending on the state, the list may contain all chemicals even if they are not hazardous, or only those chemicals that have OSHA standards. Since chemicals are often known by different names, all common (trade) names should be listed. The OSHA Permissible Exposure Limit (PEL) for each hazardous ingredient must be listed.
- **Physical/Chemical Characteristics:** Boiling point, vapor pressure and density, melting point, evaporation rate, etc.
- **Fire and Explosion Hazard Data:** Flash point, flammability limits, ways to extinguish special firefighting procedures, and unusual fire and explosion hazards.
- **Reactivity Data:** How certain materials react with others when mixed or stored together.
- **Precautions of Safe Handling and Use:** What to do in case materials spill or leak, how to dispose of waste safely, how to handle and store materials in a safe manner, appropriate hygienic practices, and protective measures to be used during the repair and maintenance of contaminated equipment.
- **Health Hazard Data:** Health effects (acute=immediate; chronic=long-term), ways the hazard can enter the body (lungs, skin, or mouth), signs and symptoms of exposure, emergency and first-aid procedures, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical.

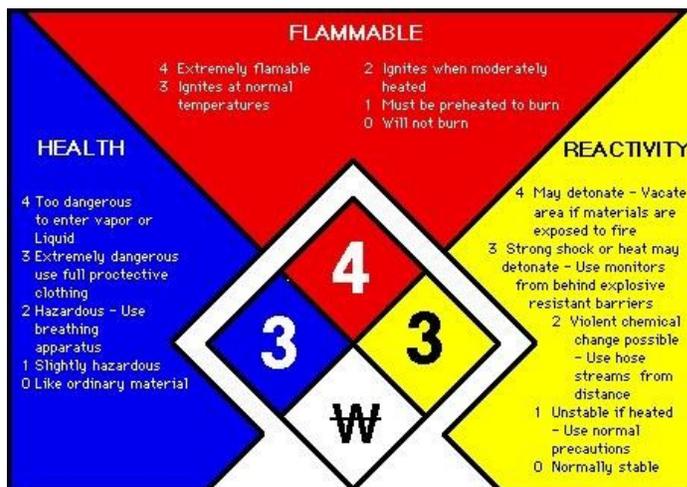


- **Control Measures:** Ventilation (local, general, etc.), type of respirator/filter to use, other appropriate engineering controls, work practices or personal protective equipment (PPE) such as gloves, safety glasses, or goggles, face shields, aprons, etc.
- **Primary Routes of Entry:** inhalation, absorption, etc.
- **Emergency and First-Aid Procedures:** flushing with water, removal to fresh air, etc.

**Q: How long do I have to keep MSDS forms on file and where in the OHSU Policies and Procedures do I find retention information?**

**A:** The OHSU Records Retention Schedules can be found at: [http://ozone.ohsu.edu/policy/pac/chapt\\_7/records\\_retention\\_schedule.pdf](http://ozone.ohsu.edu/policy/pac/chapt_7/records_retention_schedule.pdf)

The Records Retention Schedule is to be read in conjunction with the *OSHA standard, 1910.1020, Access to employee Exposure and Medical Records defines "employee exposure records" to include material safety data sheets. This standard requires all employee exposure records to be maintained for at least 30 years.*

**Sample National Fire Protection Associations "Fire Diamond":****MSDS RESOURCES****CROET Chemical Risk Information:**

<http://www.ohsu.edu/xd/research/centers-institutes/croet/lab/chemical.cfm#Worker>

**MSDSonline:** <http://www.msdsonline.com/> — Registration allows a free trial search that "is limited in use." OSHA, DOT, ANSI and WHMIS compliant sheets in PDF format. Number of MSDS: 3,500,000+

**MSDSXchange:** <http://www.msdsxchange.com/english/index.cfm> — Search Xchange database or manufacturer's web sites - or even browse those in alphabetical order. Sheets in PDF format; most appear to be ANSI compliant. Number of MSDS: 1,000,000+ ■

 For a current issue of SafetyNews online, and for archives, visit:  
<http://www.ohsu.edu/xd/about/services/integrity/ehrs/safety/gen/safetynews.cfm>  
 The SafetyTeam page is available at:  
<http://www.ohsu.edu/xd/about/services/integrity/ehrs/safety/gen/safetyteam.cfm>  
 These pages are updated regularly. If there are OHSU resources you'd like to see linked, please send suggestions to the SafetyTeam Coordinator at: [safeteam@ohsu](mailto:safeteam@ohsu)



*Make it Personal:*

## Protect Yourself from Mercury

Oregon Dept of Environmental Quality

### WHAT IS SO BAD ABOUT MERCURY?

Mercury is a naturally occurring element, but is highly toxic, resists breaking down in the environment, and accumulates in the food chain. Mercury can permanently affect fetal and child development and can damage the brain, kidneys, and lungs.

### WHAT ARE OTHER MAJOR SOURCES OF MERCURY POLLUTION?

Mercury is released through coal burning energy production, some industrial processes, abandoned mines, garbage incineration, improper disposal, and accidental spills. Rain carries it from the air to the watershed where it can accumulate in the food chain, affecting certain types of fish.

### HOW DOES MERCURY GET INTO MY BODY?

People are most commonly exposed to mercury by eating mercury-contaminated fish. Women who may become pregnant, pregnant women, and children are most susceptible and should be cautious of eating more than one fish meal from any source in a week. Certain kinds of large ocean fish should not be eaten at all, as well as some Oregon freshwater fish. See Oregon Fish Health Advisories at:

**Questions?** Ask Environmental Health & Radiation Safety:

**503-494-7795**



<http://public.health.oregon.gov/HealthyEnvironments/Recreation/Pages/fishconsumption.aspx>. Other routes of exposure are from breakage of mercury-containing devices such as mercury thermometers or fluorescent tubes.

### OTHER PRODUCTS THAT MAY CONTAIN MERCURY:

- Button cell batteries
- Fluorescent light tubes
- Old paint (pre-1990)
- Pesticides
- Barometers
- Blood pressure cuffs
- Art supplies/chemistry sets
- Tilt switches (silent light switches)
- Contact lens solution with “thimerosal”
- Antiseptic solution with “thimerosal” or “merbromin” (such as mercurichrome)
- Although they are being phased out, older devices may still contain mercury, including:
  - Fever thermometers
  - Non-digital thermostats
  - Safety shutoffs in irons/washers
  - Trunk light in your car
  - Lawnmower fuel-level indicator



### HOW CAN I HELP?

- **Exchange your mercury-containing thermometer for a digital thermometer.** DEQ sponsors a number of household hazardous waste collection events statewide that include mercury thermometer collection and exchange.
- To find out where you can recycle mercury thermostats, other household hazardous waste, elemental mercury or mercury-containing devices at home, go to the DEQ's Household Hazardous Waste web page for facility or collection event information.

### RESOURCES

- The Oregon Department of Environmental Quality website: <http://www.oregon.gov/DEQ/>, and look under “Waste Management”
- Metro Recycling — call at 1-800-732-9253 or visit their website at: <http://www.oregonmetro.gov/>. Additionally, Metro has a calendar of events throughout the Portland Metropolitan area. ■