

Fiberglass Manufacturing and the Environment

This fact sheet explains environmental regulations that may impact your business. You'll find regulations listed on the front and best management tips on the back. Other regulations may apply to your specific situation. Please call DEQ or your supplier for help in ensuring compliance and avoiding civil penalties that can exceed \$10,000 per day per violation.

AIR QUALITY

The use of styrene in most methods of fiberglass production causes hazardous air pollution that is harmful to breathe at excessive levels. Using gelcoats containing less styrene is one way to emit less air pollution.

Is a permit required?

DEQ issues permits to manage the amount of pollution that enters the air. If you use an average of 40 gallons (¾ of a drum) of resin and gelcoat combined in a day, you probably need an air permit. To be sure, calculate emissions based on your production process and the percent of styrene in your gelcoat and resin. If there is a potential to emit more than 10 tons of styrene per year, then a permit is required. [The Composite Fabricator Association's website](#) provides tools for estimating emissions.

If your facility does not have the potential to emit 10 tons of styrene per year, but you do use other materials that contain solvents, such as paints, then you may still have the potential to emit 10 tons of volatile organic compounds (VOCs) per year. If this is the case, then a permit is required. VOC content is listed on Material Safety Data Sheets (MSDS) and will be useful in estimating emissions. Also note that acetone is *not* considered a VOC by the Environmental Protection Agency.

For more information

Call DEQ's Business Assistance Program or your regional DEQ office (please see the telephone list to the right). Your chemical supplier may also be able to help you.

WATER QUALITY

Wastewater and polluted runoff can end up in Oregon's rivers and groundwater. This pollution can dirty drinking water, kill or contaminate fish, and make waters unsafe for swimming.

Is a permit required?

- **For process water:** A water quality permit is required if wastewater or wash water discharges to dry wells, storm drains, or surface water. Check with your local sewage treatment plant before discharging to the sewer.
- **For storm water:** Industries require a storm water permit if:
 - 1) manufacturing materials or activities are exposed to storm water *and*
 - 2) the runoff enters a point source discharge such as a storm drain or a ditch.
- **For drywells or sumps:** All drywells/sumps need to be registered and approved prior to use through the Underground Injection Control program.

For more information Call your local DEQ office or the Underground Injection Program (please see the telephone list to the right).

LAND QUALITY

Using solvents can generate hazardous waste, which is harmful to the environment if not

properly managed. Creating useful products is a way to avoid generating hazardous waste.

What are the regulations?

Hazardous waste regulations involve labeling, handling, and record keeping requirements and depend on how much hazardous waste is generated and stored. Your business may be a:

- **Conditionally Exempt Generator (CEG)** if you store less than 2,200 lbs. (about 5 drums) of hazardous waste at any time *or* generate less than 220 lbs. (about ½ drum) in any one month,
- **Small Quantity Generator (SQG)** if you store over 2,200 lbs. at any time *or* generate between 220 and 2,200 lbs. (between ½ and 5 drums) per month,
- **Large Quantity Generator (LQG)** if you generate more than 2,200 lbs. (about 5 drums) during any one month.

In addition to managing and disposing of hazardous wastes according to regulation, SQGs and LQGs must obtain a generator ID number from DEQ, pay fees, develop Toxics Use Reduction Plans, and report as required.

Managing hazardous waste:

Remember that specific requirements depend on your generator status. Generally, you must:

- 1) determine if your wastes are hazardous,
- 2) learn how to count your hazardous waste,
- 3) count your hazardous waste to determine your generator status,
- 4) label and date your waste containers,
- 5) keep hazardous waste containers closed,
- 6) meet storage time limit restrictions, and
- 7) have a spill prevention and response plan.

Disposing of hazardous waste:

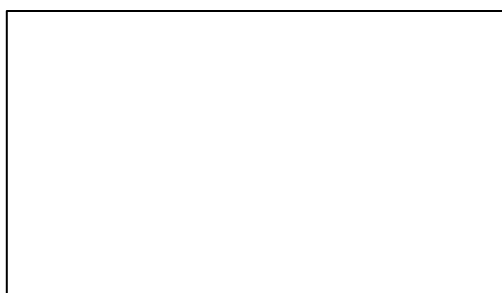
Hire a registered hazardous waste transporter to pick up your hazardous waste. Note that still bottoms generated exclusively from spent acetone can be landfilled if they:

- 1) are completely hardened when they exit the still *and*
- 2) meet Land Disposal Restrictions.

For more information

Call DEQ's Waste Reduction Assistance Program or your local DEQ region for help (please see the telephone list to the right).

Your Supplier:



State of Oregon
Department of
Environmental
Quality

Toll free (800) 452-4011
www.oregon.gov/DEQ/

**Small Business
Assistance Program,
Air Quality Division**
Bryan Smith
(503) 229-5376
Fax (503) 229-5675

**Waste Reduction
Assistance Program,
Land Quality Division**
(503) 229-5913

**Underground Injection
Control Program,
Water Quality Division**
(503) 229-5945

Eastern Region, Bend
(541) 388-6146

**Northwest Region,
Portland** (503) 229-5263

**Western Region,
Salem** (541) 378-8240

**Western Region,
Eugene** (541) 686-7838

**Lane Regional Air
Protection Agency,
Eugene**
www.lrapa.org
(541) 736-1056

**Western Region,
Medford** (541) 776-6010

State Fire Marshal
(503) 378-6835

TRI hotline
1-800-424-9346

**Oregon Emergency
Response System**
1-800-452-0311

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HAZARDOUS SUBSTANCE REPORTING



The Oregon State Fire Marshal's office tracks the location of hazardous substances. Fire departments, emergency planners or responders, and the general public can use the data to locate potential hazards in their communities.

"The Hazardous Substance Information Survey" is sent to most businesses in the state. All substances that have a Material Safety Data Sheet (MSDS), as required by Oregon OSHA, must be considered for reporting *if* the maximum amount used meets or exceeds the reportable quantity for that substance. Reportable quantities are as follows: 50 gallons for liquids, 500 pounds for solids, 200 cubic feet for gases.

For more information

Call the State Fire Marshal's Hazardous Substance Information Hotline at 503-378-6835 with questions or to receive a survey.

TOXIC RELEASE INVENTORY REPORTING



The Environmental Protection Agency collects information for their annual Toxic Release Inventory (TRI) as required by the Emergency Planning and Community Right to Know Act (EPCRA).

TRI reports are required from facilities that:

- ✓ total 20,000 work hours (about 10 full time employees) per year *and*
- ✓ are one of the covered facilities ("blue brochure", pages 11 & 12) *and*
- ✓ manufacture/export, process, or otherwise use the threshold amount of any listed chemical ("blue brochure", pages 4, 5 & 20 - 43).

For more information

Call the TRI hotline at 1-800-424-9346 and/or visit the TRI website, <http://www.epa.gov/tri>. Refer to the "blue brochure" as a useful summary, http://www.epa.gov/tri/guide_docs/2001/brochure2000.pdf.

BEST MANAGEMENT PRACTICES



Understanding regulations and preventing pollution can save you money and lower your risks. Consider periodic improvements of your production process to reduce impacts to health and the environment.

Materials

- Maintain an inventory control system to avoid accumulating extra materials.
- Buy chemicals in small containers when small amounts are needed and buy in bulk when large amounts are needed.
- Use low styrene resins and gelcoats.
- Use recycled plastic feedstock where available.

Emergency Preparedness

- Train staff to follow a set of spill prevention and response procedures.
- Install a spill containment system around hazardous materials storage.
- **Notify Oregon Emergency Response System (OERS) at 1-800-452-0311 if you have a spill.**

Techniques

- Use non-atomizing spray technologies.
- Train staff on efficient spray techniques.
- Add catalyst to waste resins and gelcoats to cure the material and create useable products.
- Keep hazardous materials moving from process to still (don't store it) to minimize hazardous waste counting and associated hazardous waste management requirements.
- Maintain optimum operating efficiency of your still by properly calibrating still settings so that no liquid remains in the still bottoms.
- Recycle still bottoms by creating useable products instead of wastes.
- Refer to the materials exchange website (listed below) to identify other parties that want your unused materials.
- Reduce packing/cardboard waste by recycling or using two way shipping containers.
- Reuse or recycle other wastes whenever possible.

Saving Energy

- Have an energy audit conducted.
 - Implement energy saving recommendations and apply for a Business Energy Tax Credit (see Office of Energy website listed below).
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INFORMATION RESOURCES



For telephone contacts, please see the list in the right hand column on the front page.

Department of Environmental Quality

www.deq.state.or.us

Composite Fabricator's Association

www.cfa-hq.org

Pollution Prevention Resource Center

www.pprc.org

Link to materials exchanges

www.nwmaterialsmart.org

Oregon State Office of Energy

<http://oregon.gov/ENERGY/>

Environmental Protection Agency

www.epa.gov/tri

Oregon State Fire Marshal

www.sfm.state.or.us/CR2K/cr2k.htm
