



Oil-Based Paint Projects and Clean Air

Air Pollution Control Program fact sheet

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A fresh coat of paint or stain can transform a drab room or piece of furniture into one that looks brand new. However, care must be taken when using and disposing of unwanted or leftover paint. Construction and renovation projects that involve paint may release contaminants and pollutants into the air and environment.

This fact sheet describes oil-based (also known as solvent-based) coatings such as paints, stains and varnishes and their potential effects on the environment. It also provides some practical ideas on how to use and handle them properly.

Oil-Based Products

Oil-based coatings contain resins, solvents, pigments and additives. These coatings are harmful to the environment because they contain petroleum distillates and pigments which, when evaporated, can increase volatile organic compound (VOC) levels in the air.

Oil-based coatings can have adverse effects on your health if not used properly. If used in poorly ventilated areas, the vapors from these products can irritate eyes, skin, and lungs, causing headaches and nausea. The vapors can also contribute to respiratory problems, muscle weakness and liver and kidney damage.

Oil-based coatings can also harm the environment if not disposed of properly. Never pour paint down a storm drain or sewer system. This can pollute groundwater, rivers and streams.

Volatile Organic Compounds (VOCs)

Volatile organic compounds (VOCs) are compounds that are readily released into the air as a gas from building materials such as paint. Painting projects may introduce a variety of VOCs into the air. Increases in VOCs contribute to the production of ground-level ozone, which reduces visibility and air quality.

These compounds are also associated with a variety of health symptoms. At high enough levels, exposure can cause central nervous system effects (headaches, drowsiness). At lower levels, they can irritate the eyes, nose and throat.

Choosing low VOC emitting products is always recommended but is especially critical if the material to be installed has a high surface area. For example, covering a large surface such as building exteriors, floors and walls will introduce more material and have a more significant impact on air quality.

What Can I Do?

In preparing for a painting or staining project, consider the following tips for using, recycling and disposing of oil-based coatings.

Buy only what you need

Full cans of paint can be donated to local charities such as Habitat for Humanity. Another option may be to take the leftover paint to a household hazardous waste collection center or collection event. These programs often collect leftover paint and other coatings from households and may recycle them locally or send them to a recycling center. For a list of collection services, contact the department's Solid Waste Management Program at 1-800-361-4827 or at www.dnr.mo.gov/env/swmp/hhw/hhw.htm.

Store it properly

Store oil-based coatings in their original container with the lid on securely to keep them fresh until you need them again. This will also prevent unnecessary VOC emissions. In addition, avoid storing them in extreme temperatures. By following these simple steps, you will not only prolong the life of your paint, stain, or varnish, but also avoid waste and protect air quality.

Use up leftovers

The best way to get rid of leftover paint or varnish from one household project is to use it up on another. If you cannot use it yourself, give it away in its original container to friends, neighbors, or community groups. Schools or local theater groups may be able to use the paint for scenery or similar uses.

Recycle your leftovers

Contact your regional office to find out about household hazardous waste (HHW) collection programs. These programs have been set up to collect, reuse and recycle leftover paint and other coatings from households.

Reuse your applicators

Remove as much as you can from rollers and brushes to minimize the cleanup process. Use thinner to finish cleaning the applicators. Recycle the used thinner by placing it in a jar until the paint particles settle. You can then use a coffee filter to strain out the paint particles, which will allow you to reuse the thinner.

Do not clean rollers, brushes and other equipment in the street or other places where the rinse water can flow into storm drains. Also, do not clean rollers and brushes in the backyard because the paint or other products may contaminate the soil.

Use latex paint as an alternative

Oil-based paint may work better for some tasks (such as priming hardwood) but a safer and more environmentally friendly alternative is water-based or latex paint. Technological improvements, in recent years, to water-based paints have greatly increased their durability and protection of surfaces.

Use proper disposal methods

If an oil-based coating container is empty, it may be disposed of in the trash. A container is considered empty if nothing pours out when it is held upside down and if chipping or scraping cannot remove any product remaining in the container. Aerosol cans are considered empty if no propellant is dispensed when the pressure-sensitive valve is pressed down on an aerosol can.

For households

When no collection services are available, leftover paint may be placed in the household trash if properly prepared for disposal. For small amounts, apply the paint to cardboard and place in the trash after it's dry. For larger amounts, try one of these methods:

1. Stir in kitty litter or sawdust; allow time for the material to absorb the liquid paint until dry. Discard the can and the dried paint in the trash.
2. Pour the paint in layers about a half-inch thick into a cardboard box lined with plastic bags. Let each layer dry before adding another. Discard the box with the dried paint in the trash.

For businesses and other non-residential sources

Missouri laws and regulations require that businesses make a hazardous waste determination and properly dispose of their waste. To find out more from the department's Hazardous Waste Program about how to manage oil-based paint, see www.dnr.mo.gov/env/hwp/enf/Paint.htm or contact the program at 1-800-361-4827.

Additional Information

You may obtain additional information about properly managing paint waste from the sources listed below. Please note that many municipalities have their own additional requirements that might be more stringent than those discussed above. Contact the offices below to seek guidance for your area.

Regional Offices - www.dnr.mo.gov/regions/regions.htm

Kansas City Regional Office	(816) 622-7000
Northeast Regional Office (Macon)	(660) 385-8000
St. Louis Regional Office	(314) 416-2960
Southeast Regional Office (Poplar Bluff)	(573) 840-9750
Southwest Regional Office (Springfield)	(417) 891-4300

Additional considerations and sources

Hazardous waste requirements are found in the Missouri Hazardous Waste Management Laws, Sections 260.345 through 260.575 of the Revised Statutes of Missouri (RSMo). You can look up Missouri's Revised Statutes on the Web at www.moga.mo.gov/statutesearch/.

Solid Waste disposal requirements are found in rule, 10 CSR 80-3.010 *Design and Operation*, section (3) Solid Waste Excluded lists types of waste that may not be accepted at a Missouri landfill.

These include

- (3)(A) 1. Regulated quantities of hazardous waste
- (3)(A) 5. Bulk liquids
- (3)(A) 6. Highly flammable or volatile substances

These rules are available on the Missouri Secretary of State's Web page at www.sos.mo.gov/adrules/csr/current/10csr/10c80-3.pdf

For more information

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or (573) 751-4817 office
(573) 751-2706 fax
www.dnr.mo.gov/env/apcp/index.html

Missouri Department of Natural Resources
Hazardous Waste Program
P.O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or (573) 751-7560 office
(573) 751-7869 fax
www.dnr.mo.gov/env/hwp/index.html

Missouri Department of Natural Resources
Solid Waste Management Program
P. O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or (573) 751-5401 office
(573) 526-3902 fax
www.dnr.mo.gov/env/swmp/index.html