

US EPA ARCHIVE DOCUMENT

## COMMUNITY INFORMATION SHEET



## Could your family be affected?

Certain paints or coatings may contain as much as 40% volatile organic compounds (VOC). By reformulating the mixture to be low-VOC, air emissions of these pollutants may be reduced.

— National Paint and Coating Association

In one year, a paint manufacturer took back 44,000 gallons of unused paint from its customers and consumers and reworked it into new paint products.

— Valspar Corporation

One manufacturer recycles and reuses 95% of the solvent used in the cleanup process, which reduces emissions and the amount of solvent purchased.

— Pollution Solutions



# Reducing Air Pollution from: Paint and Coating Manufacturing

## Why should paint and coating manufacturing operations reduce air pollution?

People who are exposed to toxic air pollutants at sufficient concentrations, for sufficient durations, may increase their chances of getting cancer or experiencing other serious health effects, such as reproductive problems, birth defects, and aggravated asthma.

Pollution prevention can reduce the impact of air pollution by using materials, processes, or practices that reduce or eliminate air pollution at the source.

Paint and coating manufacturing operations produce paints, inks, adhesives, and a variety of other specialty coatings that preserve, protect, and decorate products. Activities such as mixing and cleaning operations may release pollutants into the air and cause health concerns in the community.

The best paint and coating manufacturing operations implement pollution prevention strategies not only to help comply with federal, state, local, and Tribal laws but also to further minimize impacts on human health and the environment. Check with your state, local, and Tribal agencies for existing regulations.

## What kinds of air pollutants may come from the manufacture of paints and coatings?

- Paint and coating manufacturing operations can produce hazardous air pollutants, including heavy metals.
- Mixing and cleaning operations can release some toxic air pollutants and volatile organic compounds (VOC). Chemicals in these substances can react in the air to form ground-level ozone (smog), which has been linked to a number of respiratory effects.
- Pigment grinding and milling emits

particle pollution (dust), which can contain heavy metals and other toxic air pollutants. While federal, state, local, and Tribal regulations limit the amount of emissions from paint and coating manufacturing operations, dangerous releases of toxic air pollutants can occur if a paint and coating manufacturing operation is not in compliance with regulations.

## How can paint and coating manufacturers reduce air pollution?

Making changes in operation work practices can stop pollutants at the source and increase production efficiency. By evaluating and improving work practices, operations can decrease emissions, reduce production costs, and protect employee and public health.

Examples of changes in work practices that help reduce air pollution include:

### Changing Products

- Eliminate the use of heavy metals like chromium and cadmium in paint pigments.
- Change coatings to reduce solvent content.

### Changing Cleaning Procedures

- Use cleaning procedures that reduce the amount of solvent needed.
- Schedule product runs to minimize the amount of cleaning needed between colors or products.

### Recycling and Reformulating

- Collect dust from pigment grinding operations for reuse.
- Rework or blend off-specification materials into new products.
- Set up or participate in a paint exchange program.

**As a community, what can you do to help reduce air pollution from paint and coating manufacturing operations?**

### Make Connections

- Get to know local paint and coating manufacturing operation owners and operators. They know best about the materials and processes used in their business and the regulations with which they must comply.
- Keep local media aware of progress by sending them updates. Publicity can reward success and attract more public involvement.

### Make a Plan

- One idea is to form a work group that includes local owners and operators to develop and implement workable pollution reduction plans.

### Locate Resources

- Use the “For Further Information” list below to find

governmental and nonprofit contracts who can provide help with analysis, technical information, equipment, and funding.

### Reward Operations

- Use media connections to provide coverage for successful efforts. Positive publicity can mean increased business.
- Visibly displayed awards or certificates may also increase business.

### Inform the Public

- Work with coating manufacturers to educate the public about reformulated paints.
- Users of reformulated coatings may require training to inform them that these coatings will have the same functionality as the coatings they replace.
- Emphasize reductions in toxic air pollutant emissions, safety hazards, and the use of potentially toxic solvents.

## For Further Information

- National Paint and Coatings Association: [www.paint.org](http://www.paint.org), (202) 462-6272
  - EPA Air Toxics Web Site: [www.epa.gov/ttn/atw/](http://www.epa.gov/ttn/atw/)
  - EPA’s Sector Strategies Partnership Program for the Paint and Coatings Sector: [www.epa.gov/sectors/paintcoatings/index.html](http://www.epa.gov/sectors/paintcoatings/index.html), (202) 566-2958
  - National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing: [www.epa.gov/ttn/atw/mcm/mcmmpg.html](http://www.epa.gov/ttn/atw/mcm/mcmmpg.html)
  - National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing and Miscellaneous Coating Manufacturing: [www.epa.gov/ttn/atw/mon/monpg.html](http://www.epa.gov/ttn/atw/mon/monpg.html)
  - Paints and Coatings Resource Center: [www.paintcenter.org](http://www.paintcenter.org)
  - Community-Based Projects: [www.epa.gov/air/toxicair/community.html](http://www.epa.gov/air/toxicair/community.html)
  - Community information, regional, state contacts: [www.epa.gov/epahome/whereyoulive.htm](http://www.epa.gov/epahome/whereyoulive.htm)
  - Pollution prevention awards: State, local, and Tribal government agencies, universities
  - Toxicity of materials: Materials suppliers, Integrated Risk Information System (IRIS) ([www.epa.gov/iris](http://www.epa.gov/iris)), Air Toxics Health Effects Notebooks ([www.epa.gov/ttn/atw/hapindex.html](http://www.epa.gov/ttn/atw/hapindex.html))
  - Training opportunities: Paint and coatings manufacturing trade associations
  - Solvent Alternatives Guide: [www.sage.rti.org](http://www.sage.rti.org)
  - The Coatings Guide™: [www.cage.rti.org](http://www.cage.rti.org)
- For more information, please see the Resources section of the Owner/Operator Information Sheet.

