

# **Guideline for the Management of Waste Paint**

## **1 Introduction**

- 1.1 Definitions**
- 1.2 Characteristics**
- 1.3 Potential Effects**

## **2 Roles and Responsibilities**

- 2.1 Environmental Protection Service**
- 2.2 Generators**

## **3 Waste Management**

- 3.1 Pollution Prevention**
- 3.2 Storage**
- 3.3 Transportation**
- 3.4 Disposal**

## **4 Conclusion**

**Contact list**

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# Guideline for the Management of Waste Paint

## 1 Introduction

This guideline provides general information on proper management of waste paint. Waste paint is a contaminant under the *Environmental Protection Act* (EPA) of the NWT and must be managed as a hazardous waste.

Paints are used to protect a surface from corrosion, oxidation, or other type of deterioration and to provide decorative effects. Alkyd paints and speciality coatings contain solvents and other chemicals that are corrosive, flammable, reactive and toxic. Recently the use of lead in modern household paint has been restricted by federal legislation. For the management of lead paint removed from steel or other structures, refer to the Guideline for the Management of Waste Lead.

This guideline is specific to the management of waste paint and should be read in conjunction with the Guideline for the General Management of Hazardous Waste in the NWT (referred to as the General Guideline). Section 2.2 of the Act gives the Minister of Resources, Wildlife and Economic Development the authority to develop, coordinate and administer these guidelines.

### 1.1 Definitions

<i>Alkyd paint</i>	Oil based paint.
<i>Generator</i>	The owner or person in charge, management or control of a hazardous waste at the time it was generated, or a facility that generates hazardous waste.
<i>Latex paint</i>	Water based paint.
<i>Paint</i>	A uniformly dispersed mixture having a viscosity ranging from a thin liquid to a semi-solid paste consisting of: (1) drying oil, synthetic resin or binder; (2) a solvent or thinner; (3) and organic or inorganic pigment.
<i>Speciality coatings</i>	A group of modern chemical compounds designed for protecting materials under exacting conditions such as chemical tank linings, concrete coating at sewage treatment plants and other industrial applications. Examples include: acrylic, asphaltic, epoxy, flexible ceramic, phenolic, polyester, polyurethane, vinyl ester.
<i>Transport authority</i>	The regulations controlling the management of hazardous waste under that mode of transport. These include:  Road and rail - <i>Transportation of Dangerous Goods Act</i> (TDGA) and <i>Regulations</i> (TDGR)  Air - <i>International Civil Aviation Organization Technical Instructions</i> (ICAO)

Marine - *International Maritime Dangerous Goods Code (IMDG)*.

*Waste paint*

Alkyd, latex or speciality coatings which are no longer used for its original purpose and is intended for storage, recycling or disposal but does not include dried paint or dried paint chips.

## **1.2 Characteristics**

Alkyd paints contain oil and solvents which are toxic and flammable. Cleaning of painting equipment requires the use of solvents which have the same hazardous properties as alkyd paint. Solvent management procedures are provided in the Guideline for the Management of Waste Solvents.

Latex paints are nonflammable and offer ease of application. They generally do not have a disagreeable odor and can be used on both interior and exterior surfaces. Paint brushes and other tools are easily cleaned up with soap and water. Latex paint wastes are not hazardous wastes and can be disposed into most sewage treatment systems or landfills. Depending on the location, municipal approvals may be required.

Speciality paints and coatings are gaining greater acceptance and becoming common place in the paint industry. These new generation paints are derived from chemical compositions that can withstand extreme environment and temperature conditions. Many speciality coatings are a two-component mix; a base and a hardener. Epoxy coatings are one example. The hazard characteristics (TDGR Classification) of speciality coatings are identified on the Material Safety Data Sheets (MSDS) provided by the manufacturer. These should be reviewed prior to use of the product.

## **1.3 Potential Effects**

The oils and solvents in alkyd paints and speciality coatings are toxic. If released into the environment they have the potential to contaminate drinking water supplies, groundwater and can be toxic to plants and aquatic animals. Water contaminated by paints and the solvents used to clean painting tools can also contaminate drinking water supplies and other areas of the environment.

Vapors released from alkyd paint are toxic to humans if inhaled over a long period of time in high enough concentrations. These vapours have the potential to start a fire if exposed to a spark or flame and support a fire once started because they are flammable.

Speciality coatings, especially two-component systems, may also be toxic, flammable, reactive or corrosive. Handling and safety procedures should be in accordance with the MSDS.

## 2 Roles and Responsibilities

### 2.1 Environmental Protection Service

The Environmental Protection Service (EPS) of the Department of Resources, Wildlife and Economic Development is the Government of the Northwest Territories' (GNWT) agency responsible for initiatives which control the discharge of contaminants and their impact on the environment. EPS is responsible for ensuring that environmentally acceptable management procedures, emission levels and disposal methods are maintained. EPS programs are applied primarily to Commissioner's Land, lands administered by municipal governments or GNWT undertakings. Legislative authority is provided by the EPA and *Pesticide Act*. Contact EPS for a listing of relevant regulations and guidelines.

### 2.2 Generators

**The responsibility for proper waste management rests with the generator and should be considered as part of the cost of doing business.**

Every person who generates waste paint is responsible for the proper management of these substances. Waste paint must be safely handled, packaged, stored, transported, treated and/or disposed in accordance with this guideline and all applicable Acts and regulations.

## 3 Waste Management

**Minimizing or avoiding the creation of pollutants and wastes can be more effective in protecting the environment than treating them, or cleaning them up after they have been created.**

Canadian Council of Ministers of the Environment

### 3.1 Pollution Prevention

Pollution prevention methods reduce or eliminate the generation of waste. Pollution control practices treat waste after it has been generated. Pollution prevention strategies for paint include the following:

#### Reduce

- ? Purchase the correct amount of paint for the size of the job to minimize leftover excess paint.
- ? Train staff in proper painting techniques to improve painting efficiencies.
- ? Use water-based or latex paints instead of more toxic alkyd paints.
- ? Use powder coats instead of liquid paints where applicable.

## Recycle

- ? Mix compatible paint leftovers as a utility blend.
- ? Make excess paints available for use by others.
- ? Bulk compatible paints in appropriate containers and transport to approved paint recyclers.
- ? Make an agreement with your supplier/distributor of paint to return the unused paint.

## 3.2 Storage

### **Waste storage is not a long term solution.**

Store waste paint according to the following:

- ? Use original containers where possible, containers manufactured for the purpose or bulk paint into 16 gauge or lower steel or plastic drums.
- ? Use containers that are sound, sealable and not damaged or leaking.
- ? Label containers according to the requirements of the Work Site Hazardous Materials Information System (WHMIS) of the *Safety Act*, or the relevant Transport Authority if transport to a recycling or disposal facility is planned. (see Section 3.3 Transportation)
- ? Keep the containers sealed or closed at all times.
- ? Containers must be protected from the weather and physical damage.
- ? Train personnel in the safe use, storage and shipping procedures for waste paint. Only trained persons should have access to the storage area.

The storage of waste paint is only acceptable as an interim measure to permit time for the collection of sufficient volumes for cost effective transport to a recycling or disposal facility.

Storage of waste paint in quantities greater than 1000 kilograms for a period greater than 180 days requires the site to be registered as a hazardous waste storage facility. Consult the General Guideline or contact EPS for application procedures.

## 3.3 Transportation

This section applies to all paints and coatings classified as a dangerous goods under TDGR, specifically alkyd paints and speciality coatings. Latex paints are not included in this section.

The transportation of waste paint to an approved recycling, treatment, disposal or management facility requires proper classification, packaging, labeling and manifesting as required by the transport authority (air, road, rail, marine). Specific requirements for waste generators and carriers are detailed in the General Guideline.

For road transportation purposes, waste paint can be classified in the following ways, depending on the type of paint.

Shipping Name:                    **Waste Paint (or Waste Paint Related Materials)**  
**Classification: Class 3**  
**P.I.N.: UN1263**  
**Packaging Group: II or III**  
**Special Provision 108**

Shipping Name:                    **Waste Paint (or Waste Paint Related Materials)**

**Classification: Class 8**  
**P.I.N.: UN3066**  
**Packaging Group: II or III**  
**Special Provision 108**

Further consultation with the transport authority is recommended.

Generator numbers, waste manifests and registered hazardous waste carrier lists are available from the Environmental Protection Service.

### **3.4 Disposal**

**Regardless of the type of paint, using it for the intended purpose is the preferred management method.**

Domestic waste paint and speciality coatings may be accepted for exchange at community "Household Hazardous Waste Day" locations operated by the municipality. The paint industry is currently expanding its product stewardship program and is accepting waste paints for recycling into new paint products. Approved paint recyclers are available by contacting the Canadian Paint and Coatings Association listed at the end of this guideline.

The best disposal option for waste alkyd and speciality paint is to bulk it in good quality 205 litre steel or plastic drums, in a condition suitable for shipping. List it with a waste exchange or send it to a registered recycling or disposal facility. Contacts for recycling and disposal companies are available by contacting the waste management associations listed in Appendix II of the General Guideline.

Less than 5 litres of alkyd paint can be allowed to dry fully and taken to the landfill. Fully dried-out quantities of latex paints may be disposed of at a landfill or placed in the garbage for collection.

Paint can be air dried by spreading it out on a board, plastic sheet or other flat surface until all the liquid has evaporated. Dry paint outdoors in a well ventilated area. For safety purposes open flames must not be present. Prevent children, pets or wildlife from coming into contact with the paint.

Management of speciality coatings is determined by the hazard characteristics of each product as identified in the MSDS. For two-component products, special neutralizing agents or procedures may be required. Due to the chemical nature of speciality coatings, the manufacturer or a waste management company should be consulted for the disposal options. EPS may approve the method, subject to conditions.

Consideration will be given to proposals for alternate management methods that provide a level of environmental protection equivalent to complying with this guideline. The EPS may approve the method, subject to conditions.

## 4 Conclusion

This guideline presents a brief introduction into the management of waste paint. It is intended as a source of basic information and should be read in conjunction with the Guideline for the General Management of Hazardous Waste in the Northwest Territories.

For more information contact:

- 1) Canadian Paint & Coatings Association  
9900 Kavendish Blvd. Suite 103  
St.Laurent PQ H4M 2V2  
Phone: (514) 745-2611 Fax: (514) 745-2031
  
- 2) Environmental Protection Service  
Department of Resources, Wildlife and Economic Development  
600, 5102-50 Avenue  
Yellowknife NT X1A 3S8  
Phone: (867) 873-7654 Fax: (867) 873-0221
  
- 3) Motor Vehicles  
Department of Transportation  
76 Capital Drive, Suite 201  
Hay River NT X0E 1G2  
Phone: (867) 874-5000 Fax: (867) 874-6088
  
- 4) Prevention Services Division  
Workers' Compensation Board  
Box 8888  
Yellowknife NT X1A 2L9  
Phone: (867) 920-3888 Fax: (867) 873-0262
  
- 5) Steel Structures Painting Council  
40 - 24th Street, Suite 600  
Pittsburgh, PA 15213  
United States of America  
Phone: (412) 281-2331 Fax: (412) 281-9992