

Product Safety Summary

Electrocoat

This Product Safety Summary is intended to provide a general overview of the chemical substance. The information on the Summary is basic information and is not intended to provide emergency response information, medical information or treatment information. The summary should not be used to provide in-depth safety and health information. In-depth safety and health information can be found on the Material Safety Data Sheet (MSDS) for the chemical substance.

Chemical Identity

Abbreviation: E-Coat

CAS Number : Mixture

Common Names: Cathoguard®
Electrodeposition
BASF products typically include an alpha-numeric code starting with U32

Product Overview

- Electrocoat is a corrosion resistant protective coating applied to metal prior to the primer layer. Cathoguard® was developed for and is used in the automotive and automotive tier supply chain. Parts are cleaned and treated prior to being dipped into a tank of electrocoat bath where the paint is applied using a direct current. Afterwards, the parts are removed from the bath, rinsed, and the electrocoat finish oven cured prior to application of subsequent finishing layers.
- Electrocoat products are delivered to the customer as an emulsion and pigment paste and mixed with water in large tanks at the customer location. Baths typically contain more than 80-90 % water and exhibit flashpoints above 200°F. Electrocoat products are low in Volatile Organic Compounds (VOC). BASF's Cathoguard® products contain low levels of Hazardous Air Pollutants (HAP) or are HAPs-free.
- For further safety and health information, the current Material Safety Data Sheet (MSDS) should be reviewed for the specific product.

Physical/Chemical Properties

- Electrocoat bath is typically a thin, gray liquid with a mild odor. Electrocoat baths will have a density similar to water (~8.7 lb/gal)
- Pastes may be very dark gray or black. The density will be heavier than water. (~11 lb/gal)
- Emulsions will be a milky, light color with density similar to water.
- Flashpoints for components and the finished product are above 200°F.

Health Information

Routes of Exposure

Since the parts are dipped into the bath, potential inhalation and skin contact exposure is minimal.

Acute Exposure

Electrocoat systems have not been tested as a whole. Skin contact may result in irritation, defatting and dermatitis. Vapors cause irritation to the respiratory tract and the eyes.

Principal materials used in Electrocoat manufacturing and their hazards are as follows:

- Carbon Black
 - Acute exposure to carbon black dusts may be irritating to the eyes, skin and respiratory tract.
 - Prolonged inhalation exposures may produce cough, phlegm, tiredness, chest pain and headache. Dermal, inhalation or mucosal exposures may cause irritation. Chronic exposures to carbon black have been known to produce pneumoconiosis (chronic inflammatory and fibrotic lung disease) in workers. IARC has classified carbon black in Group 2B (sufficient evidence of carcinogenicity in humans).
- Titanium dioxide
 - In a National Cancer Institute (NCI) feeding study, titanium dioxide was not carcinogenic to rats or mice at maximum tolerated doses. In another study, TiO₂ caused fibrosis and lung cancer in rats exposed to 250 mg/m³ by inhalation. However, no effects were seen at lower airborne concentrations. IARC has classified carbon black in Group 2B (sufficient evidence of carcinogenicity in humans).

Environmental Information

Product has not been tested as a whole. Disposal should be in accordance with local regulations

Exposure Potential

Exposure to raw materials during manufacturing of the product should be controlled using good ventilation and work practices. Risk of exposure under conditions of normal use is expected to be very low. Some people may experience irritation from vapors given off during the cure cycle.

Consumers will not be exposed to uncured electrocoat. Minimal electrocoat dust exposure may occur during mechanical sanding of parts during paint repair processes. A dust respirator may be required during mechanical sanding using powered equipment.

Risk Management

General ventilation should be used. The risk of electrocution is significant during the electrocoat process. No one should be in the electrocoat bath booth during activation of the electrical source. Appropriate safety precautions must be in place.

Respiratory protection is not typically required. An exception to this may be during sanding of vehicles or parts with cured paint when a particulate respirator may be worn.

Butyl, natural or synthetic rubber, nitrile, or neoprene gloves should provide adequate protection if liquid electrocoat is handled. Aprons or other appropriate protective clothing may be required.

Contact and MSDS Information

<http://www.basf.com>

Or contact your BASF representative directly

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