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## Product Safety Summary

### Conductive Primers

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: Primer

CAS Number: Mixture

Common Names: Conductive Primer; Adhesion Promoter  
BASF products typically include an alpha-numeric code starting with U04, U25 2K

The products use an acrylic, polyester, or epoxy with melamine resin to form the film. 2K primers use an isocyanate based resin for increased performance. Pigments and fillers include titanium dioxide and carbon black.

#### Product Overview

- Primers function to form a matrix for additional coating layers to adhere to metal or plastic components. Conductive primers serve to improve the contact and adhesion of the electrocoat layer to the basecoat.
- Flashpoint of the primers is typically below 73°F and must be handled as a flammable liquid.
- VOC levels of the products is ~ 3 – 6 lb/gal
- Volatile Hazardous Air Pollutants (HAPs) in the current product portfolio are low and often below reportable levels.
- Distribution of the products is limited to industrial users. Primary customers are OEM's and Tier 1 suppliers to the automotive industry. Products are typically delivered to the customer in totes or drums.
- For further safety and health information or environmental information, the current specific product Material Safety Data Sheet (MSDS) or Technical Data Sheet (TDS) should be reviewed.

#### Physical/Chemical Properties

- Most automotive primers are dark gray.
- Flashpoints for components and the finished product are in the flammable liquid range
- Products are heavier than air.

#### Health Information

##### Routes of Exposure

- Industrial exposure may occur through inhalation or skin contact.

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### Exposure Information

The primer system has 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 contained in the primers as sprayed include:

- Acrylic resins
  - Generally speaking, acrylic resins are not considered to be hazardous
- Polyester Resins
  - Polyester resins are not considered to be hazardous
- Epoxy Resins
  - Uncured epoxy resins can present a dermal exposure hazard resulting in skin irritation, rashes and, subsequently, dermatitis if contact is prolonged. Sensitization can also develop.
- Melamine Resins
  - The melamine resins are large molecules that are not significantly hazardous in these products. However, formaldehyde, a building material of the melamine product is both a skin sensitizing agent and an OSHA designated carcinogen. Formaldehyde may be present in the coating at levels up to approximately 0.2%.
- Polyisocyanate – 2K primers only
  - The significant hazard associated with these resin systems is the presence of isocyanates. Exposure to the vapor may cause irritation of the eyes, respiratory tract and skin. Respiratory sensitization (an allergic, asthmatic-type reaction) may occur.
- Solvents
  - Solvents are used in the product to allow and adjust the viscosity for required spray application. Solvent inhalation exposure can cause headache, nausea, and central nervous system depression. Skin contact can defat the proteins causing dryness and itching. Chronic exposure to solvents may cause target organ damage such as reduced liver or kidney function.
- Carbon Black
  - 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 animals).
- 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, TiO<sub>2</sub> caused fibrosis and lung cancer in rats exposed to 250 mg/m<sup>3</sup> by inhalation. However, no effects were seen at lower airborne concentrations.

### **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.

Spray application of the coating should be conducted in a properly operated spray booth with adequate ventilation. Skin contact should be avoided. If exposed, wash affected area thoroughly.

Consumers will not be exposed to uncured coating. Minimal 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**

Appropriate spray booths with adequate ventilation and equipment should be used.

The most immediate risk in handling this product is the fire potential. Material must be properly bonded and grounded during any transfer of material. Spray equipment and booths must be designed and operated properly.

Respiratory protection is recommended during hand spray application. Minimally this should include a half-mask respirator with organic vapor cartridges and dust filter. Air supplied hoods may be appropriate if ventilation cannot adequately control exposure

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

### **Contact and MSDS Information**

<http://www.basf.com>

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