

## Product Safety Summary

### 2K Clearcoat

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: 2K ClearCoat; 2K4; EverGloss®; ProGloss®; CC

CAS Number : Mixture

Common Names: 2K Clearcoat; abbreviations/tradenames above  
2K Clearcoats are composed of a polyol and a hardener. Typical polyols are coded with an alpha-numeric code beginning with E10, E222, or E42 and may be referred to as the "A" component. The hardeners are similarly coded with codes beginning with N52 or SC29 and may be referred to as the "B" component.

#### Product Overview

- 2K clear coat is a top coat layer used in several automotive systems to provide a durable, scratch resistant polyurethane finish to the vehicle.
- 2K products are developed for use by OEM Automotive facilities and Automotive Tier manufacturers only. The product typically requires an oven bake cycle to cure the coating and ensure product performance. Users must be knowledgeable in OEM and Tier coating processes and material handling.
- 2K products are delivered to the customer as an acrylic polyol and a polymeric isocyanate. These components are mixed onsite just prior to application.
- The polymeric isocyanate hardener can create hazards including sensitization if handled improperly. All persons associated with the transportation, storage, or handling of the polyisocyanate materials must understand the hazards. This includes training in both routine and emergency handling procedures. Other hazards include those associated with solvents exposure including the potential for headaches and temporarily impaired central nervous system depressions as well as defatting of the skin. Chronic overexposure to the products may result in more serious health and safety risks.
- The flashpoint of both components classifies the materials as flammable due to the solvent composition. Proper precautions during handling and use are necessary to minimize the potential for sparks.
- For further safety and health information, the current Material Safety Data Sheet (MSDS) should be reviewed for the specific product.

#### Physical/Chemical Properties

- Clearcoats are typically void of pigment and will appear clear to translucent with a hint of amber color from the resins. Some tinted clears are available and in these cases the translucent color will be identified in the coating description
- Polyol density is generally around 8-8.4 lb/gal; similar to water.
- The polyisocyanate component density is typically 8.4 – 8.8 lb/gal, similar to water. Polyisocyanates will react with water.
- Flashpoints for components and the finished product are in the flammable liquid range

## Health Information

### Routes of Exposure

- Inhalation and skin exposure are the principle occupational exposure routes

### Exposure Information

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

Principal materials contained in the clearcoat as sprayed include:

- Acrylic resins
  - Generally speaking, acrylic resins are not considered to be hazardous
- Polymeric isocyanates
  - Isocyanates are sensitizing agents for both skin and the respiratory tract. BASF uses polymeric isocyanates to reduce the availability of the chemically functional group that can cause these symptoms while still offering the properties required by our customers. The polyisocyanates are introduced into the 2K product through the "B" component often identified in BASF products as an N52 material.
- Solvents
  - Solvents are used in the product to allow and adjust the viscosity for required spray application. Several solvents are used in the 2K products with acetates and hydrocarbons being most common. 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.
  - Ethylbenzene is a suspect carcinogen that is found in the polyol between 0-1%.

## 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. Persons handling the product must be trained in safe handling and use of the product. Risk of exposure under conditions of normal use and appropriate personal protective equipment is expected to be low. Some people may experience irritation from vapors given off during the cure cycle.

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. Persons wearing respirators must be evaluated and respirators maintained properly as described in workplace

regulations. Air supplied respirators including hoods may be appropriate if ventilation cannot adequately control exposure

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

**Contact and MSDS Information**

<http://www.basf.com>

Or contact your business representative directly

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