

# Safety Data Sheet



## 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Diamond Hard Coat 607 Part B**

**Supplier:** Solid Solutions Group  
**ABN:** 81978276285  
**Street Address:** 35 Hugh street  
Belmore NSW 2192  
**Telephone:** 0412 190 736  
**Email:** sales@solidsolutions.com.au

**Emergency Telephone number:** 0412 190 736 Monday - Friday 8:00am - 3:30pm

## 2. HAZARDS IDENTIFICATION

This product is classified as a HAZARDOUS SUBSTANCE according to criteria of the ASCC and as DANGEROUS GOODS according to the ADG Code. **Hazard Category:**

C (Corrosive); Xn (Harmful); Xi (Sensitiser); N (Dangerous for the Environment). **Emergency**

### **Overview:**

Alkaline material may cause burns. Harmful if swallowed. **Acute**

### **Skin Contact:**

Corrosive. May cause severe irritation and possibly burns. **Chronic**

### **Skin Contact:**

Corrosive. Product will cause severe irritation and burns. Product may be a skin sensitiser in some individuals.

### **Acute Eye Contact:**

Alkaline material. Based on data available for the components of this product, eye contact may result in severe eye irritation and corneal injury, which may be permanent. **Chronic Eye Contact:**

Alkaline material. Corneal injury may result in permanent vision impairment or even blindness. **Acute**

### **Inhalation:**

Risk of inhalation is low due to low vapour pressure at ambient temperatures, but ensure ventilation is adequate to maintain air concentrations below exposure standards. **Chronic Inhalation:**

Prolonged exposure to high concentrations of vapour may affect the central nervous system. Ensure ventilation is adequate to maintain air concentrations below exposure standards. **Ingestion**

### **(Swallowed):**

Corrosive, alkaline material, causes burns. Single dose toxicity has not been determined for this formulation. Single dose oral toxicity is expected to be low, based on information available for each item.

### **Primary Routes of Exposure:**

Skin, Inhalation.

### **Risk Statements:**

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R34 Causes burns.

R41 Risk of serious eye damage.

R43 May cause sensitisation by skin contact.

R50 Very toxic to aquatic organisms.

R53 May cause long-term adverse effects in the aquatic environment.

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### **Safety Statements:**

S2 Keep out of the reach of children.

S24/25 Avoid contact with skin and eyes.

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S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S28 After contact with skin, wash immediately with plenty of water.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).  
S60 This material and its container must be disposed of as hazardous waste.  
S61 Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.

## 3. COMPOSITION INFORMATION

Components	CAS Number	Concentration (Weight)
Polymer of bisphenol A and epichlorhydrin	25085-99-8	<98 %
Other components		<30%

## 4. FIRST AID MEASURES

### Scheduled Poisons:

Poisons Information Centre in each Australian State capital city can provide additional assistance for scheduled poisons. (Phone Australia 13 1126) or a doctor (at once). **First Aid Facilities Required:** Eye wash fountains and a general washing facility should be easily accessible in the immediate work area.

### Skin Contact:

If skin or hair contact occurs, immediately remove contaminated clothing and flush skin and hair with running water for at least 15 minutes. Seek medical attention immediately. Chemical burns must be treated by a doctor. Discard or wash any contaminated clothing before reuse. **Eye Contact:**

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek medical attention immediately. **Ingestion (Swallowed):**

If swallowed DO NOT induce vomiting. If person is conscious and can swallow, give 2 glasses of water to drink. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration into the lungs, and give fluids again. Seek medical attention immediately. Never give anything by mouth to an unconscious patient. **Inhalation:**

Risk of inhalation is low due to low vapour pressure at ambient temperatures. If vapours of hot material have been inhaled, remove victim to fresh air – avoid becoming a casualty. If not breathing, apply mouth-to-mouth resuscitation. If breathing is difficult, qualified personnel should administer oxygen. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Call a doctor and/or transport to an emergency hospital.

The main ingredient of this formulation is corrosive to tissue. If product in eyes, check for corneal injury. The decision of whether to induce vomiting should be made by the attending doctor. If burn present, suggest treatment as a thermal burn after decontamination. Human effects not established for this product. No specific antidote. Treatment based on the sound judgment of the doctor and the individual reactions of the patient. Poisons Information Centre in each Australian State capital city can provide additional assistance for scheduled poisons.

## 5. FIRE FIGHTING MEASURES

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## Hazards from Combustion Products:

Upon combustion, this product may emit carbon monoxide, carbon dioxide, oxides of nitrogen (NO<sub>x</sub>), ammonia, and other possibly toxic gases and vapours on burning. **Hazardous Decomposition**

## Products:

Upon decomposition, this product may emit carbon monoxide, carbon dioxide, oxides of nitrogen (NO<sub>x</sub>), ammonia, and other possibly toxic gases and vapours on burning. **Suitable**

## Extinguishing Media:

Carbon dioxide, dry chemical foam, dry powder. For large-scale fires, alcohol resistant foams are preferred if available. General-purpose synthetic foams or protein foams may function, but much less effectively. Water spray, fog or foam may be used but not as a water jet. If possible, contain fire run off water.

## Precautions for Fire Fighting:

In case of fire use large quantities of water, foam, carbon dioxide or a dry chemical. Immediately evacuate the area (including down-wind) of unnecessary personnel. People who are fighting fires must be protected against hazardous combustion products by wearing positive pressure self-contained breathing apparatus and full protective clothing. Do not reseal contaminated containers. Containers may rupture when exposed to fire conditions. If safe to do so, remove container(s) from the path of the fire if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. **Hazchem Code:**

2X.

**Flash Point:** > 100°C

**Solubility in Water:** Partially Soluble.

## Fire Hazards:

Hazardous combustion products: Upon decomposition, this product may emit carbon monoxide, carbon dioxide, oxides of nitrogen (NO<sub>x</sub>), ammonia, and other possibly toxic gases and vapours on burning.

## Flammability:

Non-flammable liquid. Product may burn in a fire situation generating toxic vapours or fumes.

## 6. ACCIDENTAL RELEASE MEASURES

### Spills:

Personal Precautions:

Evacuate and ventilate spill area. In case of spill, wear full protective equipment including respiratory equipment during clean up as indicated in section 8 below. Isolate hazard area and deny entry.

Environmental Precautions:

Contain spill, e.g. by diking, to prevent entry into sewers, drainage system, surface or ground water systems. In the event of product entering waters or drainage system, or polluting soil or plants contact the Environmental Protection Authority or your local Waste Management Authority. **Major Spill:**

If transportation spill, dial "000" for Police or Fire Brigade. Large quantities may be pumped into closed containers for disposal. **Minor Spill:**

Spilt material may result in a slip hazard and should be absorbed into dry, inert material (e.g. sand, sawdust, vermiculite or other absorbent), which then can be put into appropriately labelled open top drums.

## 7. HANDLING AND STORAGE

### Handling:

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Avoid all personal contact, including skin and eye contact and inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. **Storage:** Store indoors in cool place in original, unopened containers. Store away from strong oxidising agents, acids. Store away from heat and ignition sources. Masses of more than 0.5 kg of product plus an epoxy resin will cause irreversible polymerization with considerable heat build-up.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Limits:

National Occupational Exposure Limits, as published by National Occupational Health & Safety Commission:

Time-weighted Average (TWA): None established for this product.

TWA for m-Xylylenediamine is 0.1 mg/m<sup>3</sup> (Peak Limitation).

Short Term Exposure Limit (STEL): None established for this product or its ingredients. **Engineering**

### Controls:

Ensure for good ventilation/ suction. Use only in a well-ventilated area. Ensure airflow, where this product is used, is directed away from the operators. Ensure ventilation is adequate to maintain air concentrations below exposure standards. If this is not possible, use appropriate personal protective equipment (meeting the requirements of AS/NZS 1715 and AS/NZS 1716). **Personal Protection:** Respiratory protective equipment: Avoid breathing dust (or) vapour (or) spray mist, suitable breathing mask where ventilation is inadequate or where ventilation is insufficient to maintain air concentrations below exposure standards..

Eye protection: Avoid contact with eyes. Wear eye protection when mixing or using. The use of face shields, chemical goggles, or safety glasses with side shield protection is recommended. Hand

protection: Avoid contact with skin. Wear protective gloves when mixing or using. Chemical resistant gloves (e.g. Butyl, Neoprene, Viton, Polyethylene/Ethylene Vinyl Alcohol/ Polyethylene (or PE/EVAL/PE) or Dupont Barricade gloves complying with AS 2161) are recommended.

Clothing: Suitable protective clothing complying with AS 2919 (Industrial Clothing), suitable footwear complying with AS/NZS 2210 (Occupational protective footwear - Guide to selection, care and use).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical Description/ Properties:

#### Appearance:

Colourless liquid

#### Colour:

Colourless **Odour:**

Slightly ammonia-like odour.

#### pH:

Alkaline **Vapour**

#### Pressure:

Not known

#### Vapour Density:

Heavier than air.

#### Boiling Point/ Range:

Not known

#### Freezing/ Melting Point:

Not known

#### Solubility in Water:

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Partially Soluble.

**Specific Gravity:**

0.94-0.98

**Flashpoint:** > 100 °C

**Flammability Limits:**

Not applicable.

**Ignition Temperature:**

Not known

**Other Properties:**

**Volatile Organic Compounds (VOC) Content:**

<1 % v/v.

**Per Cent Volatile:**

<1 % v/v.

**Solubility in Solvents:**

Soluble in many organic solvents. **Stability:**

Stable under normal conditions.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:**

Stable at normal temperatures and pressure. **Conditions**

**to Avoid:**

Avoid extreme heat.

**Materials to Avoid:**

Strong oxidising agents, acids. A reaction accompanied by large heat release occurs when the product is mixed with acids. Masses of more than 0.5 kg of product plus an epoxy resin will cause irreversible polymerization with considerable heat build-up. **Hazardous Decomposition:**

Upon decomposition, this product may emit carbon monoxide, carbon dioxide, oxides of nitrogen (NO<sub>x</sub>), ammonia, and other possibly toxic gases and vapours on burning. **Hazardous**

**Polymerisation:**

Will not occur by itself, but masses of more than 0.5 kg of product plus an epoxy resin will cause irreversible polymerization with considerable heat build-up.

## 11. TOXICOLOGICAL INFORMATION

**Health Effects:**

No data for product, following data is compiled on basis of ingredients.

Acute:

**Swallowed:**

On basis of ingredients:

Isophorone Diamine, corrosive to the digestive tract if ingested. **Eye:**

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On basis of ingredients:

Isophorone Diamine, causes eye burns. **Skin:**

On basis of ingredients:

Isophorone Diamine, causes skin burns. **Inhaled:**

On basis of ingredients:

Isophorone Diamine, inhalation may be fatal as a result of spasm, inflammation, oedema of the larynx and bronchi, chemical pneumonitis and pulmonary oedema. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. **Carcinogenicity:**

No data for product or ingredients.

## **Reproductive and Developmental Toxicity:**

No data for product or ingredients. **Acute**

## **Toxicity Data (Oral):**

On basis of ingredients:

Acute Toxicity for Isophorone Diamine, (Oral) LD50 (rat) 1,030 mg/kg.

Acute Toxicity for Benzyl Alcohol, (Oral) LD50 (rat) 1,230 mg/kg; Benzyl Alcohol, (Oral) LD50 (rabbit) 1,040 mg/kg. Benzyl Alcohol, (Oral) LD50 (mouse) 1,360 mg/kg. **Acute Toxicity Data (Dermal):**

On basis of ingredients:

Acute Toxicity for Isophorone Diamine, (Oral) LD50 (rabbit) 2,200 mg/kg.

Benzyl Alcohol, (Dermal) LD50 (rabbit) 2,000 mg/kg.

**Acute Toxicity Data (Inhalation):** On basis of ingredients: not known **Chronic Toxicity Data:**

On basis of ingredients:

Benzyl Alcohol, damage to heart. **Sensitisation:**

No data for product or ingredients.

## 12. ECOLOGICAL INFORMATION

No data for product, following data is compiled on basis of ingredients. **Movement & Partitioning**

On basis of ingredients:

Benzyl Alcohol, when it is released into the soil, this chemical may evaporate to a moderate extent and is expected to leach into groundwater. When released into water this chemical is not expected to evaporate significantly. It has a low potential to affect aquatic organisms. If diluted with a large amount of water, this chemical released directly or indirectly into the environment is not expected to have a significant impact. When released into the air this chemical may be removed from the atmosphere to a moderate extent by wet deposition. Log octanol/water partition coefficient (log Pow) of 1.1.

## **Degradation & Persistence:**

On basis of ingredients:

Isophorone Diamine, not readily biodegradable.

Benzyl Alcohol, when it is released into the soil, this chemical may biodegrade to a moderate extent and is expected to leach into groundwater. When released into water this chemical may biodegrade to a moderate extent. This chemical has a high biological oxygen demand, and it is expected to cause significant oxygen depletion in aquatic systems. It has a moderate potential to affect secondary waste treatment microorganisms and the germination and growth of some plants. It has a low potential to affect aquatic organisms. It is readily biodegradable and is not likely to bioconcentrate with an estimated bioconcentration factor (BCF) of less than 100. When released into the air this chemical is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals, and is expected to have a half life between 1 and 10 days. **Aquatic Toxicity:**

No data for product or ingredients. **Fish**

## **Toxicity:**

On basis of ingredients:

Toxicity for Isophorone Diamine, Acute LC50 (48 hour) for golden orfe (*Leuciscus idus*) is 110 mg/l.

Toxicity for Benzyl Alcohol, Acute LC50 (48-96 hour) for fathead minnow (*Pimephales promelas*) is 770-460 mg/l.

## **Algae Toxicity:**

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No data for product or ingredients. **Invertebrates**

## **Toxicity:**

On basis of ingredients:

Toxicity for Isophorone Diamine, Acute EC50 (24 hour) for water flea (*Daphnia magna*) is 42 mg/l;

NOEC (21 day) for water flea (*Daphnia magna*) is 3 mg/l.

Toxicity for Benzyl Alcohol, Acute EC50 (48 hour) for water flea (*Daphnia magna*) is 400 mg/l; EC100 (48 hour) for water flea (*Daphnia magna*) is 500 mg/l. **Toxicity to Microorganisms:**

On basis of ingredients:

Toxicity for Isophorone Diamine, Acute EC10 (16 hour) for bacteria (*Pseudomonas putida*) is 1120 mg/l.

Toxicity for Benzyl Alcohol, Acute EC50 (5, 15, 30 min) for bacteria (*Photobacterium phosphoreum*) is 71.4 mg/l. **General:**

DO NOT DISCHARGE INTO DRAINS, WATERWAYS, SEWER OR ENVIRONMENT. Product partially soluble in water. Keep from entering waste-water, soil or surface waters. Inform local authorities if this occurs.

## 13. DISPOSAL CONSIDERATIONS

Any disposal of product, drain and rinse liquid, or containers, must be in accordance with all State, Territory and/or Local government regulations. Liquids are usually incinerated in an approved facility. Waste characterisation and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. None of these waste management options should be considered "arranging for disposal".

## 14. TRANSPORT INFORMATION

### **General:**

This material is a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. **UN Number:** 1760.

### **UN Proper Shipping Name:**

CORROSIVE LIQUID, N.O.S. (Contains Isophorone Diamine and m-Xylylenediamine).

### **ADG Class:**

8.

### **ADG Subsidiary Risk:**

Not Applicable.

### **Packing Group:**

II.

### **HAZCHEM Code:**

2X.

### **Flammability:**

Non-flammable liquid. Product may burn in a fire situation generating toxic vapours or fumes.

## 15. REGULATORY INFORMATION

### **SUSDP:**

Poisons Schedule Number S5 allocated. **AICS:**

All ingredients present on AICS.

### **Labelling Details:**

### **Hazard Category:**

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C (Corrosive); Xn (Harmful); Xi (Sensitiser); N (Dangerous for the Environment). **Risk**

**Statements:**

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R34 Causes burns.

R41 Risk of serious eye damage.

R43 May cause sensitisation by skin contact.

R50 Very toxic to aquatic organisms.

R53 May cause long-term adverse effects in the aquatic environment. **Safety**

**Statements:**

S2 Keep out of the reach of children.

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of water.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.

**ADG Code:**

Class 8.

## 16. OTHER INFORMATION

**SUSDP**

Standard for the Uniform Scheduling of Drugs and Poisons.

**ADG Code**

Australian Code for the Transport of Dangerous Goods by Road and Rail.

**CAS Number**

Chemical Abstracts Service Registry Number. **UN**

**Number**

United Nations Number.

**HAZCHEM**

An emergency action code of numbers and letters which gives information to emergency services.

**ASCC**

Australian Safety and Compensation Council.

**AICS**

Australian Inventory of Chemical Substances. **Issue**

**Date:**

16.9.10 **Note:**

Safety Data Sheets are updated frequently. Please ensure that you have a current copy. Disclaimer: This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since Solid Solutions cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace. This SDS does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.



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**Disclaimer** The information herein is to the best of our knowledge, correct and complete. It describes the safety requirements for this product and should not be construed as guaranteeing specific properties. Since methods and conditions are beyond our control we do not accept liability for any damages resulting from the use of or reliance on, this information in inappropriate contexts.