



**SAFETY DATA SHEET**  
CURING AGENT PR-13

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Issued: 07/06/02

Revision No: 2

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**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

**Product name:** CURING AGENT PR-13

**Use / description of product:** CURING AGENT

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

**Contains:** CAS:-100-51-6. BENZYL ALCOHOL Xn; R20/22. >45%

CAS:-2855-13-2 ISOPHORONEDIAMINE - C;R21/22-34-43-52/53. <30%

**3. HAZARDS IDENTIFICATION**

**Main hazards:** Harmful by inhalation, in contact with skin and if swallowed. Causes burns. May cause sensitisation by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**4. FIRST AID MEASURES (SYMPTOMS)**

**Skin contact:** (Acute effects) Contact with the skin may cause dryness(defatting),itching and/or rash. Product is absorbed through the skin and may cause nausea, headache and general discomfort. Contact of undiluted product with the skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. Repeated and/or prolonged exposure may cause allergic reaction/sensitization.

**Eye contact:** Acute effects:- Product vapour in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal burns may occur. Burns of the eye may cause blindness.

**Inhalation:** (Acute effects) Inhalation of vapours/mists or aerosols may severely damage contacted tissue and produce scarring. (Possible longer term effects) There may be a feeling of tightness in the chest with shortness of breath. Dryness of nasal passages may be experienced when material is inhaled over a long period of time.

**4. FIRST AID MEASURES (ACTION)**

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Transfer to hospital if there are burns or symptoms of poisoning. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.

**Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

**Ingestion:** Do not induce vomiting. If conscious, give 1 pint of water to drink immediately. If

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substance swallowed is corrosive, give 1 cup of water to drink every 10 minutes. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing media:** In case of large fire:- Water spray. Alcohol or polymer foam. In case of small fire:- Carbon dioxide. Dry chemical powder. Dry sand or limestone.

**Exposure hazards:** May generate toxic, irritating or flammable combustion products. Contact of liquid with skin must be prevented. May generate carbon monoxide and ammonia gas. A sudden reaction and fire may result if product is mixed with an oxidizing agent. In combustion emits toxic fumes of nitrogen oxides. Personnel in vicinity and downwind should be evacuated.

**Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Refer to section 8 of SDS for personal protection details. Open enclosed spaces to outside atmosphere.

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Flush area with water spray. Avoid all incompatible materials in clean-up procedure - see section 10 of SDS.

**7. HANDLING AND STORAGE**

**Handling requirements:** Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air. Do not eat, drink or smoke. Avoid direct contact with the substance.

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. Do not store in reactive metal containers. Avoid incompatible materials and conditions - see section 10 of SDS. Store in steel containers, preferably located outdoors, above ground and surrounded by dikes to contain spills or leaks.

**Suitable packaging:** Steel drums.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Neoprene gloves. Impermeable gloves. Butyl gloves. Nitrile gloves. The breakthrough

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time of the selected gloves must be greater than the intended use period.

**Eye protection:** Goggles giving complete protection to eyes and eyewash bottle with clean water.

**Skin protection:** Protective clothing with elasticated cuffs and closed neck. Boots made of PVC.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**State:** Liquid

**Colour:** Colourless

**Odour:** Irritating odour which may affect the eyes and respiratory system

**Viscosity:** (CPS) 300 @ 25C (77.00 F)

**Oxidising:** Non-oxidising (by EC criteria)

**Solubility in water:** <1.00%

**Also soluble in:** ETHANOL - Slight (0.1 - 1%)

**Boiling point/range°C:** 205.00°C

**Flash point°C:** Closed cup- >93.3°C

**Vapour pressure:** mm Hg@21C <10.34

**Relative density:** 1.03

**pH:** 9.00

**10. STABILITY AND REACTIVITY**

**Stability:** Stable under normal conditions.

**Materials to avoid:** Strong mineral acids Organic Acids Oxidising agents. Reactive metals Sodium or Calcium Hypochlorite. Product slowly corrodes copper, aluminium, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. A reaction accompanied by large heat release occurs when the product is mixed with acids, could cause vigorous boiling creating a hazard due to spashing of hot material. Materials reactive with hydroxyl compounds. Nitrites, nitrosating agents.

**Haz. decomp. products:** In combustion emits toxic fumes. Nitrogen oxide can react with water vapours to form corrosive nitric acid. In combustion emits toxic fumes of nitrogen oxides. In combustion emits toxic fumes of carbon dioxide and carbon monoxide. Ammonia when heated. Irritating and toxic fumes at elevated temperatures. Nitric acid in a fire. Nitrosamines. Aldehydes. The oxides of nitrogen gases (except nitrous oxide) emitted on decomposition are highly toxic.

**11. TOXICOLOGICAL INFORMATION**

**Effects of exposure** IRRITATION EFFECTS DATA: Corrosive to the skin of a Rabbit.

**Routes of exposure** May cause sensitisation by skin contact.

**Toxicity:** IHL RAT LC50 >10.00mg/L(1 hou

ORL RAT LD50 2300.00mg/kg

SKN RBT LD50 >2800.00mg/kg

**Ingredient 1:** ORL RAT LD50 1230mg/kg

**Ingredient 2:** ORL RAT LD50 1030mg/kg

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**12. ECOLOGICAL INFORMATION****13. DISPOSAL CONSIDERATIONS**

**Waste disposal:** Arrange for collection by specialised disposal company. If disposal is by a waste contractor, make sure that he has sufficient information and that waste containers are properly labelled.

**Disposal of packaging** Arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**14. TRANSPORT INFORMATION****ADR / RID**

**UN no:** 2289

**ADR Class:** 8

**Hazard ID no:** 80

**Labelling:** 8

**Shipping name:** ISOPHORONEDIAMINE

**IMDG / IMO**

**UN no:** 2289

**Class:** 8

**Packing group:** III

**EmS:** 8-05

**Marine pollutant:** YES

**Labelling:** 8

**IATA / ICAO**

**UN no:** 2289

**Class:** 8

**Packing group:** III

**Packing instructions:** 820

**Quantity** 60 L

**Labelling:** 8

**15. REGULATORY INFORMATION**

**Hazard symbols:** Corrosive.



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

R34: Causes burns.

R43: May cause sensitisation by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:** S24: Avoid contact with skin.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek

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medical advice.

S28: After contact with skin, wash immediately with plenty of soap and 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).

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

**16. ADDITIONAL INFORMATION**

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.