



## SAFETY DATA SHEET

Page 1

CURING AGENT PR-33

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

**Product name:** CURING AGENT PR-33

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

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Contains:** CAS:- 112-57-2. TETRAETHYLENEMPENTAMINE. C;N;R21/22 R34 R43 R51/53. <2%  
CAS:-98-54-4 PARATERTIARYBUTYLPHENOL XI; R36/37/38 <12%  
CAS:- 1477-55-0. BENZENE-1, 3-DIMETHANAMINE.C;R20/22 R35. <10%  
CAS:- 25620-58-0 TRIMETHYLHEXAMETHYLENEDIAMINE C;R22 R34 R43 R52/53  
<10%

### 3. HAZARDS IDENTIFICATION

**Main hazards:** Causes severe burns. May cause sensitisation by skin contact.

### 4. FIRST AID MEASURES (SYMPTOMS)

**Skin contact:** (Acute effects) Contact with the skin may cause dryness(defatting),itching and/or rash. Contact of undiluted product with the skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. Product is absorbed through the skin and may cause nausea, headache and general discomfort. (Possible longer term effects) 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. 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) Dryness of nasal passages may be experienced when material is inhaled over a long period of time. There may be a feeling of tightness in the chest with shortness of breath. There may be coughing and a sore throat.

### 4. FIRST AID MEASURES (ACTION)

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning. DO NOT APPLY GREASES OR OINTMENTS.

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## CURING AGENT PR-33

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

**Ingestion:** Do not induce vomiting. If unconscious and breathing is OK, place in the recovery position. If conscious, give 1 pint of water to drink immediately. If substance swallowed is corrosive, give 1 cup of water to drink every 10 minutes. 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:** Personnel in vicinity and downwind should be evacuated. May generate toxic, irritating or flammable combustion products. Contact of liquid with skin must be prevented. In combustion emits toxic fumes of nitrogen oxides. May generate carbon monoxide and ammonia gas. A sudden reaction and fire may result if product is mixed with an oxidizing agent.

**Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. A face shield should be worn. Retain expended liquids from fire fighting for later disposal.

**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:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Clean up personnel must be equipped with self contained breathing apparatus and butyl rubber protective clothing. Flush area with water spray.

**7. HANDLING AND STORAGE**

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

**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. Product must be stored at temperatures above 40°F.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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

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## CURING AGENT PR-33

- Respiratory protection:** Not required under normal conditions in a well-ventilated workplace. Self-contained breathing apparatus must be available in case of emergency.
- Hand protection:** Neoprene gloves. Impermeable gloves. Butyl gloves. Nitrile gloves. PVC gloves. The breakthrough time of the selected gloves(s) 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. Impermeable protective clothing. Rubber boots. Protective clothing, rubber.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- State:** Liquid
- Colour:** Yellow-orange
- Odour:** Characteristic odour
- Solubility in water:** Moderate (1-10%)
- Boiling point/range°C:** >200.°C
- Flash point°C:** >100.°C Closed Cup.
- Vapour pressure:** mm Hg @ 21C 10.34
- Relative density:** 0.97
- pH:** Alkaline

**10. STABILITY AND REACTIVITY**

- Stability:** Stable under normal conditions.
- Materials to avoid:** Organic Acids Strong mineral acids Oxidising agents. Sodium or Calcium Hypochlorite. Reactive metals Product slowly corrodes copper, aluminium, zinc and galvanized surfaces. CAUTION ! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials reactive with hydroxyl compounds. Nitrites, nitrosating agents. 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.
- Haz. decomp. products:** Nitrogen oxide can react with water vapours to form corrosive nitric acid. In combustion emits toxic fumes of carbon dioxide and carbon monoxide. Nitric acid in a fire. Nitrosamines. Aldehydes. Irritating and toxic fumes at elevated temperatures. Ammonia when heated. In combustion emits toxic fumes of nitrogen oxides. The oxides of nitrogen gases (except nitrous oxide) emitted on decomposition are highly toxic.

**11. TOXICOLOGICAL INFORMATION**

- Effects of exposure** Component has caused allergic sensitization in animals.

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

- Waste disposal:** Disposal should be dealt with only by qualified personnel familiar with the specific

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## CURING AGENT PR-33

substance. Wear protective clothing during disposal operations. 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:** 2735

**ADR Class:** 8

**Hazard ID no:** 80

**Labelling:** 8

**Shipping name:** AMINES OR POLYAMINES, LIQUID, CORROSIVE N.O.S.

**IMDG / IMO**

**UN no:** 2735

**Class:** 8

**Packing group:** II

**EmS:** 8-05

**Marine pollutant:** YES

**Labelling:** 8

**IATA / ICAO**

**UN no:** 2735

**Class:** 8

**Packing group:** II

**Packing instructions:** 812

**Quantity** 30 L

**Labelling:** 8

**15. REGULATORY INFORMATION**

**Hazard symbols:** Corrosive.



**Risk phrases:** R35: Causes severe burns.

R43: May cause sensitisation by skin contact.

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

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 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).

[cont...]

**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.