

Ident-No: REN HY 956**Hazardous according to the criteria of NOHSC.**

Version 1

Print Date 05.08.2003

Revision Date 04.07.2003

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

Trade name : REN HY 956
 Use : Curing agent for epoxy resins

Company : Vantico Pty Ltd
 235 Settlement Road
 Thomastown 3074

Telephone : +61392802300
 Telefax : +61392802329
 Emergency telephone : Australia: 1800 033 111 New Zealand: 0800 734 607 Asia-
 number Pacific: +61 3 9663 2130

2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

Modified aliphatic polyamine
 preparation

Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases)	Concentration [%]
triethylenetetramine	112-24-3	C	R21 R34 R43 R52/53	>= 22.00 - < 30.00

3. HAZARDS IDENTIFICATION

Poison schedule: 5

Irritating to skin.
 Risk of serious damage to eyes.
 May cause sensitization by skin contact.
 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Inhalation : Move to fresh air.
 If symptoms persist, call a physician.

Eye contact : Rinse immediately with plenty of water for at least 15 minutes.
 Call a physician immediately.

Skin contact : If skin irritation persists, call a physician.
 Wash off immediately with soap and plenty of water.

Ingestion : Immediately give plenty of water (if possible charcoal slurry).
 Obtain medical attention.
 Do not induce vomiting.

Notes to physician

Treatment : No specific antidote. Treat symptomatically.

Ident-No: REN HY 956**Hazardous according to the criteria of NOHSC.**

Version 1

Print Date 05.08.2003

Revision Date 04.07.2003

First aid facility: Eye wash station . Showering facility.
Poisons Information Centres in each State capital city can provide advice for scheduled poisons.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray.
Carbon dioxide (CO₂).
Foam.
Dry powder.
- Extinguishing media which must not be used for safety reasons : High volume water jet.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Burning produces obnoxious and toxic fumes.
Carbon oxides.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Keep away from sources of ignition - No smoking.
Avoid contact with skin, eyes and clothing.
Do not breathe vapours/dust.
- Environmental precautions : If in doubt contact Vantico Pty. Limited using contact details provided on this SDS.
- Prevent product from entering drains.
Do not contaminate surface water.
Avoid subsoil penetration.
- Methods for cleaning up : Soak up with inert absorbent material and dispose of as hazardous waste.

7. HANDLING AND STORAGE**Handling**

- Advice on safe handling : Irritant sensitizing
Keep away from sources of ignition - No smoking.
Avoid formation of aerosol.
Provide sufficient air exchange and/or exhaust in work rooms.
Handle and open container with care.

Storage

- Further information on storage conditions : Keep away from food, drink and animal feeding stuffs.
Keep container tightly closed.
Keep at temperatures between 2 and 40°C.

Ident-No: REN HY 956**Hazardous according to the criteria of NOHSC.**

Version 1

Print Date 05.08.2003

Revision Date 04.07.2003

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Control parameters	Update	Basis
------------	---------	--------------------	--------	-------

Engineering measures

Engineering measures

Wherever possible, the workplace must be ventilated sufficiently to ensure that exposure standards are met. Ensure airflow, where this product is being used, is directed away from the operators.

If cured material made from this product is to be cut or sanded, ensure that dust is kept below the Worksafe Exposure Standard for inspirable dusts (10mg/m³) or the ACGIH Exposure Standard for respirable dusts (3mg/m³).

No special precautions required.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Eye protection : Tightly fitting safety goggles.
Face-shield.

Hand protection : rubber or plastic gloves

Skin and body protection : Protective suit.
Safety shoes.

Protective measures : Avoid contact with skin and eyes by wearing long impervious gloves, (Rubber, Neoprene, PVC complying to AS 2161) and industrial safety glasses. Respiratory protection complying with AS 1715, 1716 should be worn if ventilation at the workplace is inadequate. Apply barrier creams to exposed skin areas. Use with adequate ventilation. If risk of inhalations exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Do not breathe vapours/dust.

Keep away from sources of ignition - No smoking.

Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid

Colour : clear

Odour : amine-like

pH : approx.12
at (20 °C)
1:1 in water

Ident-No: REN HY 956**Hazardous according to the criteria of NOHSC.**

Version 1

Print Date 05.08.2003

Revision Date 04.07.2003

Boiling point	: > 200 °C
Thermal decomposition	: > 200 °C
Flash point	: 152 °C Method: DIN 51758 (Pensky-Martens Closed Cup)
Vapour pressure	: 0.1 Pa at 20 °C
Density	: 1 - 1.05 g/cm ³ at 25 °C
Water solubility	: at 20 °C Note: miscible
Miscibility with water	: miscible
Viscosity, dynamic	: 370 - 470 mPa.s at 25 °C

10. STABILITY AND REACTIVITY

Conditions to avoid	: Note: Take necessary action to avoid static electricity discharge.
Materials to avoid	: Strong acids and strong bases. Strong oxidizing agents.
Hazardous decomposition products	: Product will not decompose explosively. Carbon oxides. Nitrogen oxides. Burning produces obnoxious and toxic fumes.
Hazardous reactions	: Product as received will not present a dust explosion hazard. If cured material made using this product is to be machined, or sanded, a dust explosion hazard may be created. All dust generated should be removed as quickly as possible, preferably by the use of a vacuum cleaner.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 rat Dose: 4,500 mg/kg Remarks: No adverse health effects expected, however large amounts may cause nausea and vomiting.
Acute inhalation toxicity	: Remarks: Where product is used in poorly ventilated areas, and/or in confined spaces and/or at elevated temperatures, vapours may be irritating to the respiratory system.

Ident-No: REN HY 956**Hazardous according to the criteria of NOHSC.**

Version 1

Print Date 05.08.2003

Revision Date 04.07.2003

Acute dermal toxicity	:	LD50 rat Dose: > 2,150 mg/kg
Eye irritation	:	Risk of serious damage to eyes. rabbit Method: OECD 405
Skin irritation	:	irritating rabbit Method: OECD 404 dermal
Sensitization	:	Causes sensitization. guinea pig dermal
Further information	:	Chronic exposure: Product is a skin sensitiser. Repeated or prolonged skin contact may result in allergic contact dermatitis.

12. ECOLOGICAL INFORMATION**Ecotoxicity effects****Further information on ecology**

Additional ecological information : Avoid subsoil penetration.
Prevent product from entering drains.
Do not contaminate surface water.

13. DISPOSAL CONSIDERATIONS

Product : Spilt / waste material should be disposed of by incineration by an approved agent according to local regulations.

Container : Empty containers should either be sent to an approved agent for cleaning and recycling or incineration according to local regulations.

14. TRANSPORT INFORMATION**Land transport**

Road/ADR:

Regulation: Not dangerous goods

Rail/RID:

Regulation: Not dangerous goods

Ident-No: REN HY 956**Hazardous according to the criteria of NOHSC.**

Version 1

Print Date 05.08.2003

Revision Date 04.07.2003

Sea transport*IMDG:*

Regulation: Not dangerous goods

Air transport*IATA-DGR:*

Regulation: Not dangerous goods

15. REGULATORY INFORMATION**Labelling according to EEC Directive**

Labelling required

Symbol(s):	: Xi	Irritant
R-phrases(s)	: R38 R41 R43 R52/53	Irritating to skin. Risk of serious damage to eyes. May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	: S26 S36/37/39 S61 S61	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. Avoid release to the environment. Refer to special instructions/Safety data sheets. Avoid release to the environment. Refer to special instructions/Safety data sheets.
Exceptional labelling of special preparations	: According to Directive 88/379/EEC, Article 3, Paragraph 3b, classification derived from direct toxicological testing of the preparation take precedence over classification derived from using the conventional (calculation) method.	
Hazardous components which must be listed on the label	: triethylenetetramine	

National legislation**Notification status**

Ident-No: REN HY 956**Hazardous according to the criteria of NOHSC.**

Version 1

Print Date 05.08.2003

Revision Date 04.07.2003

: EINECS not required
Polymer

: TSCA yes

: DSL yes

: AICS yes

16. OTHER INFORMATION

All information is based on results gained from experience and tests and is believed to be accurate but is given without acceptance of liability for loss or damage attributable to reliance thereon as conditions of use lie outside our control. Users should always carry out sufficient tests to establish the suitability of any products for their intended applications. No statements shall be incorporated in any contract unless expressly agreed in writing nor construed as recommending the use of any product in conflict of any patent. All goods are supplied subject to Vantico's General Conditions of Sale.

CONTACT POINT:

EH&S MANAGER

TELEPHONE: (03) 9280 2325 or (03) 9280 2300 (switch)

FACSIMILE: (03) 9280 2329