

**1 Identification of substance:**

- **Product details:**
- **Trade name:** EPIKURE™ Curing Agent MGS LH 287
- **Article number:** 16S-00027/3
- **Application of the substance / the preparation**  
Epoxy resin systems  
Hardening agent/ Curing agent
- **Manufacturer/Supplier:**  
Hexion Specialty Chemicals B.V.  
Postbus 606  
3190 AN Hoogvliet Rt.  
Netherlands  
Tel.: +31 65 25 11 07 9
- **Information department:**  
see: chapter 16 (contact)  
E-Mail: eckhard.ruehle@hexion.com
- **Emergency information:**  
CALL CHEMTREC®:  
NATIONAL : 800-424-9300  
INTERNATIONAL: 703-527-3887

**2 Composition/Data on components:**

- **Chemical characterization:**
- **CAS No. Description:**  
6864-37-5 3,3'-Dimethyl-4,4'-diamino-dicyclohexylmethane

**3 Hazards identification**

- **Information pertaining to particular dangers for man and environment**  
Harmful if swallowed.  
Toxic by inhalation and in contact with skin.  
Causes severe burns.  
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- **Classification system**
- **NFPA ratings (scale 0 - 4)**  
Health: 4  
Fire: 1  
Reactivity: 0
- **HMIS ratings (scale 0 - 4)**  
Health: 4  
Fire: 1  
Reactivity: 0

**4 First aid measures**

- **General information**  
Immediately remove any clothing soiled by the product.  
Take affected persons out of danger area and lay down.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation**  
Supply fresh air or oxygen; call for doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact**  
Immediately wash with water and soap and rinse thoroughly.  
Cover wound with a sterile dressing.

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Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

- **After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

### 5 Fire fighting measures

- **Suitable extinguishing agents**

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Nitrogen oxides (NOx)

Carbon monoxide (CO)

Ammonia

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

- **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Mount respiratory protective device.

- **Measures for environmental protection:**

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

Inform respective authorities in case of seepage into water course or sewage system.

- **Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

### 7 Handling and storage

- **Handling**

- **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

- **Information about protection against explosions and fires:**

No special measures required.

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Use only receptacles specifically permitted for this substance/product.

Prevent any seepage into the ground.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**

Keep receptacle tightly sealed.

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Store in cool, dry conditions in well sealed receptacles.

**8 Exposure controls and personal protection**

- **Additional information about design of technical systems:**  
No further data; see item 7.
- **Personal protective equipment**
- **General protective and hygienic measures**  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Do not inhale gases / fumes / aerosols.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:** Plastic gloves
- **Material of gloves**  
Butyl rubber, BR  
Nitrile rubber, NBR
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses.
- **Body protection:** Impervious protective clothing

**9 Physical and chemical properties:**

- **General Information**

Form:	fluid
Color:	bluish
Odor:	amine-like
- **Change in condition**

Boiling point/Boiling range:	347°C (657°F)
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- **Flash point:** 173°C (343°F) (ISO 2719)
- **Ignition temperature:** 275°C (527°F) (DIN 51794)
- **Explosion limits:**

Lower:	0.5 Vol %
Upper:	2.8 Vol %
- **Vapor pressure at 30°C (86°F):** < 0.001 hPa (< 0 mm Hg)
- **Density at 20°C (68°F):** 0.93 - 0.96 g/cm<sup>3</sup> (DIN 53217)
- **Solubility in / Miscibility with Water at 20°C (68°F):** 3.6 g/l
- **pH-value (3.6 g/l) at 20°C (68°F):** 11 (ISO 8975)
- **Segregation coefficient (n-octanol/water):** 2.51 log POW
- **Viscosity:**

dynamic at 20°C (68°F):	142 mPa*s (ISO 9371)
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**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Dangerous reactions** Strong exothermic reaction with acids
- **Dangerous products of decomposition:**  
Poisonous gases/vapors

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Corrosive gases/vapors

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**11 Toxicological information**• **Acute toxicity:**• **LD/LC50 values that are relevant for classification:**

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Oral	LD50	320 - 460 mg/kg (rat)
Dermal	LD50	200 - 400 mg/kg (rabbit)
Inhalative	LC50/4 h	0.42 mg/l (rat)

• **Primary irritant effect:**• **on the skin:** Strong caustic effect on skin and mucous membranes.• **on the eye:** Strong caustic effect.• **Sensitization:** not sensitizing.• **Other information (about experimental toxicology):**

not mutagenic (Ames-test with and without activation).

• **Subacute to chronic toxicity:** no mutagenic effects in animal experiments**12 Ecological information:**• **Information about elimination (persistence and degradability):**• **Method**• **Analyzing method**

DOC decrease

OECD 302 B

• **Degree of elimination:** < 10 %• **Evaluation text:** Difficult to eliminate.• **Other information:** The product is difficultly biodegradable.• **Ecotoxicological effects:**• **Acquatic toxicity:**• **Type of test      Effective concentration      Method      Assessment**

Fish toxicity: LC 50 (96 h) = &gt; 22 &lt; 46 mg/l

Leuciscus idus melanotus (golden orf)

Daphnia toxicity: EC/LC 50 (48 h) = 15.2 mg/l

Algae toxicity: EC/LC 50 (72 h) = 2.1 mg/l

Bacteria toxicity: EC/LC 50 (17 h) = 96 m/l

• **General notes:**

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

**13 Disposal considerations**• **Product:**• **Recommendation**

Remove according to local authority recommendations, e.g. convey to a licensed incinerator.

• **Uncleaned packagings:**• **Recommendation:** Disposal must be made according to official regulations.**14 Transport information**• **DOT regulations:**• **Hazard class:**

8

• **Identification number:**

UN2922

• **Packing group:**

I

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- **Poison inhalation hazard:** Yes
- **Proper shipping name (technical name):** CORROSIVE LIQUID, TOXIC, N.O.S. (3,3'-Dimethyl-4,4'-diaminodicyclohexylmethane)
- **Label** 8 + 6.1
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 8 Corrosive substances
- **Packaging group:** I
- **Description of goods:** 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (3,3'-Dimethyl-4,4'-diaminodicyclohexylmethane)
- **Maritime transport IMDG:**
- **IMDG Class:** 8
- **UN Number:** 2922
- **Label** 8 + 6.1
- **Packaging group:** I
- **EMS Number:** F-A,S-B
- **Propper shipping name:** CORROSIVE LIQUID, TOXIC, N.O.S. (3,3'-Dimethyl-4,4'-diaminodicyclohexylmethane)
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2922
- **Label** 8 + 6.1
- **Packaging group:** I
- **Propper shipping name:** CORROSIVE LIQUID, TOXIC, N.O.S. (3,3'-Dimethyl-4,4'-diaminodicyclohexylmethane)

**15 Regulations**

- **SARA Section 355 (extremely hazardous substances)**

Substance is not listed.

- **SARA Section 313 (specific toxic chemical listings)**

Substance is not listed.

- **TSCA (Toxic Substances Control Act)**

Substance is listed.

- **Prop 65 - Chemicals known to cause cancer**

Substance is not listed.

- **Cancerogenity categories**

- **EPA (Environmental Protection Agency)**

Substance is not listed.

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

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- **Markings according to EU guidelines:**
- **Code letter and hazard designation of product:**
  - Toxic
  - Corrosive
  - Dangerous for the environment
- **Risk phrases:**
  - Harmful if swallowed.
  - Toxic by inhalation and in contact with skin.
  - Causes severe burns.
  - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**16 Other information:**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** see below
- **Contact:** Research and Development \*\*49/711/3898000
- **\* Data compared to the previous version altered.**

USA