

MATERIAL SAFETY DATA SHEET

Version 5.0 SDB_GB

Revision Date 25.11.2020

1: Identification of the substance/mixture and of the company/undertaking

1:1 Product identifier

Trade name : Petram Epoxy Medium Reactivity Hardener

1:2 Relevant identified uses of the substance or mixture and uses advised against Use of the : Electrical Insulation
Substance/Mixture

1:3 Details of the supplier of the safety data sheet

Name and Address : CFSNET Ltd, United Downs Industrial Park, St Day, Redruth,
Cornwall TR16 5HY
Telephone : 01209 821028
E-mail address : sales@cfsnet.co.uk

1:4 Emergency telephone number

01282770666

2: Hazards identification

2:1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Skin corrosion, Category 1A Serious eye damage, Category 1	H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity – repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2:2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms:



Signal word

Danger

Hazard statements:

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage. May cause an allergic skin reaction.

H317

H373

May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

H412

Precautionary statements: **Prevention:**

P260

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P273

Avoid release to the environment.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Response:

P303 + P361 + P353

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P304 + P340 + P310

Immediately call a POISON CENTER/ doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

P305 + P351 + P338 + P310

Continue rinsing. Immediately call a POISON CENTER/ doctor.

Hazardous components which must be listed on the label:

4,4'-methylenebis(cyclohexylamine)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

2:3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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3: Composition/information on ingredients

3:2 Mixtures Chemical

nature

: Cycloaliphatic amine based mixture

Hazardous component

Chemical name	CAS-No. EC-No./List Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
4,4'- methylenebis(cyclohexylamine)	1761-71-3 217-168-8 01-2119541673-38	Acute Tox.4; H302 Skin Corr.1A; H314 Skin Sens.1; H317 STOT RE2; H373	>= 30 - < 50
3-aminomethyl-3,5,5- trimethylcyclohexylamine	2855-13-2 220-666-8 01-2119514687-32	Acute Tox.4; H302 Acute Tox.4; H312 Skin Corr.1B; H314 Eye Dam.1; H318 Skin Sens.1; H317 Aquatic Chronic3; H412	>= 30 - < 50
Poly[oxy(methyl-1,2-ethanediyl)], α- hydro-ω-(2-aminomethylethoxy)-, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1)	39423-51-3 01-2119556886-20	Acute Tox.4; H302 Acute Tox.4; H312 Eye Dam.1; H318 Aquatic Chronic2; H411	>= 12,5 - < 20
benzyl alcohol	100-51-6 202-859-9 01-2119492630-38	Acute Tox.4; H302 Acute Tox.4; H332 Eye Irrit.2; H319	>= 3 - < 5

For explanation of abbreviations see section 16.

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4: First aid measures

4:1 Description of first aid measures

- General advice : Show this safety data sheet to the doctor in attendance.
: Keep warm and in a quiet place.
: Take off all contaminated clothing immediately.
- If inhaled : Move to fresh air.
: Keep patient warm and at rest.
: If unconscious, place in recovery position and seek medical advice.
: If symptoms persist, call a physician.
: If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact: : Wash off immediately with soap and plenty of water.
: Do NOT use solvents or thinners. If on clothes, remove clothes.
: Burns must be treated by a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
: If eye irritation persists, consult a specialist. If easy to do, remove contact lens, if worn.
- If swallowed : Do NOT induce vomiting.
: If a person vomits when lying on his back, place him in the recovery position.
: Call a physician immediately.
: Give small amounts of water to drink.

4:2 Most important symptoms and effects, both acute and delayed

- Symptoms : Burn
: Superficial burning sensation
Redness : Severe irritation

4:3 Indication of any immediate medical attention and special treatment needed

- Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicin

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5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

- : Carbon dioxide (CO₂)
- : Foam
- : Dry powder
- : Water mist

Unsuitable extinguishing Media

: None

known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during

Firefighting

- : The pressure in sealed containers can increase under the influence of heat.
- : Cool closed containers exposed to fire with water spray.
- : Hazardous decomposition products formed under fire

5.3 Advice for firefighters

conditions.

Special protective equipment for firefighters

- : In the event of fire, wear self-contained breathing apparatus.

Further information

- : Use personal protective equipment.
- : In the event of fire and/or explosion do not breathe fumes.
- : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

- : Refer to protective measures listed in sections 7 and 8.

Evacuate personnel to safe areas. Use personal protective equipment.

- : Ensure adequate ventilation.
- : Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

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6:2 Environmental precautions

Environmental precautions : Do not allow uncontrolled discharge of product into the environment.
: Try to prevent the material from entering drains or water courses.
: Local authorities should be advised if significant spillages cannot be contained.

6:3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
: Pick up and transfer to properly labelled containers.

6:4 Reference to other sections

For personal protection see section 8.

7: Handling and storage

7:1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
: Do not breathe vapours or spray mist.
: Avoid inhalation, ingestion and contact with skin and eyes. :
Wear personal protective equipment.
: Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : Provide adequate ventilation. Wash hands and face before breaks and immediately after handling the product.

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Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

- : Keep containers tightly closed in a dry, cool and well-ventilated place.
- : Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.

Further information on storage conditions

- : Protect from moisture.

Advice on common storage

- : Keep away from isocyanates.
- : Do not store near acids.
- : Keep away from oxidizing agents.

Other data

- : Stable at normal ambient temperature and pressure.

7:3 Specific end use(s) Specific use(s)

- : Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8:1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Trimethylolpropane

poly(oxypropylene)triamine

- : End Use: Workers
- : Exposure routes: Skin contact
- : Potential health effects: Long-term systemic effects :
Value: 1,6 mg/kg
- : End Use: Workers
- : Exposure routes: Inhalation
- : Potential health effects: Long-term systemic effects :
Value: 14 mg/m³
- : End Use: Consumers
- : Exposure routes: Inhalation
- : Potential health effects: Long-term systemic effects :
Value: 3,48 mg/m³
- : End Use: Consumers
- : Exposure routes: Skin contact
- : Potential health effects: Long-term systemic effects :
Value: 0,8 mg/kg

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benzyl alcohol

- : End Use: Workers
- : Exposure routes: Inhalation
- : Potential health effects: Short-term exposure, Systemic effects
- : Value: 450 mg/m³
- : End Use: Workers
- : Exposure routes: Inhalation
- : Potential health effects: Long-term exposure, Systemic effects
- : Value: 90 mg/m³
- : End Use: Workers
- : Exposure routes: Skin contact
- : Potential health effects: Short-term exposure, Systemic effects
- : Value: 47 mg/kg
- : End Use: Workers
- : Exposure routes: Skin contact
- : Potential health effects: Long-term exposure, Systemic effects
- : Value: 9,5 mg/kg
- : End Use: Consumers
- : Exposure routes: Ingestion
- : Potential health effects: Short-term exposure, Systemic effects
- : Value: 25 mg/kg
- : End Use: Consumers
- : Exposure routes: Ingestion
- : Potential health effects: Long-term exposure, Systemic effects
- : Value: 5 mg/kg
- : End Use: Consumers
- : Exposure routes: Inhalation
- : Potential health effects: Short-term exposure, Systemic effects
- : Value: 40,55 mg/m³
- : End Use: Consumers
- : Exposure routes: Inhalation
- : Potential health effects: Long-term exposure, Systemic effects
- : Value: 8,11 mg/m³
- : End Use: Consumers
- : Exposure routes: Skin contact
- : Potential health effects: Short-term exposure, Systemic effects
- : Value: 28,5 mg/kg
- : End Use: Consumers
- : Exposure routes: Skin contact

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- : Potential health effects: Long-term exposure, Systemic effects
- : Value: 5,7 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

3-aminomethyl-3,5,5-

- Trimethylcyclohexylamine
- : Fresh water
 - : Value: 0,06 mg/l
 - : Marine water
 - : Value: 0,006 mg/l
 - : Intermittent releases
 - : Value: 0,23 mg/l
 - : Fresh water sediment
 - : Value: 5,784 mg/kg
 - : Marine sediment
 - : Value: 0,578 mg/kg
 - : Sewage treatment plant
 - : Value: 3,18 mg/l
 - : Soil
 - : Value: 1,121 mg/kg

Trimethylolpropane
poly(oxypropylene)triamine

- : Fresh water
- : Value: 0,0044 mg/l
- : Marine water
- : Value: 0,00044 mg/l
- : Intermittent releases
- : Value: 0,044 mg/l
- : Fresh water sediment
- : Value: 0,02 mg/kg
- : Marine sediment
- : Value: 0,002 mg/kg
- : Soil
- : Value: 0,002 mg/kg
- : Sewage treatment plant
- : Value: 10 mg/l

benzyl alcohol

- : Fresh water
- : Value: 1 mg/l
- : Marine water
- : Value: 0,1 mg/l
- : Fresh water sediment
- : Value: 5,27 mg/kg
- : Marine sediment
- : Value: 0,527 mg/kg
- : Soil
- : Value: 0,456 mg/kg

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- : Sewage treatment plant
- : Value: 39 mg/l
- : Intermittent releases
- : Value: 2,3 mg/l

8:2 Exposure controls

Engineering measures

Effective exhaust ventilation system effective ventilation in all processing areas

Personal protective equipment

- | | |
|--------------------------|---|
| Eye protection | : Safety glasses with side-shields conforming to EN166 |
| | : Do not wear contact lenses. |
| | : Ensure that eyewash stations and safety showers are close to the workstation location. |
| Hand protection | |
| Material | : Protective gloves complying with EN 374. |
| Skin and body protection | : Protective suit |
| Respiratory protection | : Use respirator when performing operations involving potential exposure to vapour of the product. |
| | : The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self contained breathing apparatus must be used. : |
| | Equipment should conform to EN 14387 |
| Protective measures | : Avoid contact with skin. |
| | : Wear suitable protective equipment. |
-

9: Physical and chemical properties

9:1 Information on basic physical and chemical properties

- | | |
|-----------------|------------------|
| Appearance | : liquid |
| Colour | : light yellow |
| Odour | : ammoniacal |
| Odour Threshold | : not determined |

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pH	:	11, 1 %
Melting point/freezing point	:	Not applicable
Boiling point/boiling range Flash point	:	> 150 °C > 100 °C
Evaporation rate	:	Not determined
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density Density	:	Not determined
Bulk density	:	0,96 g/cm ³ (25 °C)
Solubility(ies) Solubility in other solvents	:	Not determined
Partition coefficient: noctanol/ Water	:	Not determined
Ignition temperature	:	No data available
Auto-ignition temperature	:	Not applicable
Thermal decomposition	:	Not applicable
Viscosity Viscosity, dynamic	:	Method: No data available
	:	30 - 60 mPa.s (25 °C)
Viscosity, kinematic	:	Not determined
Explosive properties	:	Not applicable
Oxidizing properties	:	Not applicable

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9:2 Other information

Surface tension : Not determined

Sublimation point : Not applicable

10: Stability and reactivity

10:1 Reactivity

Stable under recommended storage conditions.

10:2 Chemical stability

No decomposition if stored and applied as directed.

10:3 Possibility of hazardous reactions

Hazardous reactions : Reacts with the following substances:
: Acids
: Strong oxidizing agents

10:4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

10:5 Incompatible materials

Materials to avoid : Strong acids
: Strong oxidizing agents

10:6 Hazardous decomposition products

Hazardous decomposition Products : This product may release the following:
: Nitrogen oxides (NO_x)
: Carbon monoxide
: Carbon dioxide (CO₂)

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11: Toxicological information

11:1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : 514,91 mg/kg :
Method: Calculation method

Acute inhalation toxicity Acute : Remarks: No data available

dermal toxicity : Acute toxicity estimate : > 2.000 mg/kg :
Method: Calculation method

Acute toxicity (other routes of administration) : Remarks: No data available

Components:

Poly[oxy(methyl-1,2-ethanediyl)], α -hydro- ω -(2-aminomethylethoxy)-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Acute oral toxicity : LD50 (Rat, female): 550 mg/kg
: Method: OECD Test Guideline 425
: GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 1.000 mg/kg
: Method: OECD Test Guideline 402
: GLP: yes

benzyl alcohol:

Acute inhalation toxicity : LC50 (Rat, male and female): > 4.178 mg/l :
Exposure time: 4 h
: Test atmosphere: dust/mist
: Method: OECD Test Guideline 403
: GLP: yes

Skin corrosion/irritation

Product:

Remarks : No data available

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Components:

Poly[oxy(methyl-1,2-ethanediyl)], α -hydro- ω -(2-aminomethylethoxy)-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Species : Rabbit
Method : OECD Test Guideline 404 :
Result Mild skin irritation
GLP : Yes

benzyl alcohol:

Species : Rabbit
Method : OECD Test Guideline 404 :
Result No skin irritation
GLP : Yes

Serious eye damage/eye irritation

Product:

Remarks : No data available

Components:

benzyl alcohol:

Species : Rabbit
Method : OECD Test Guideline 405 :
Result Eye irritation
GLP : Yes

Respiratory or skin sensitisation

Product:

Remarks : No data available

Components:

Poly[oxy(methyl-1,2-ethanediyl)], α -hydro- ω -(2-aminomethylethoxy)-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Test Type : Buehler Test

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Exposure routes :
Species Dermal
Method :: Guinea OECD Test Guideline 406
Result pig : Does not cause skin sensitisation.
GLP : Yes

Germ cell mutagenicity

Carcinogenicity Product:

Remarks

Reproductive toxicity : No data available

Product:

Effects on fertility

Effects on foetal : Remarks: No data available
Development : Remarks: No data available

STOT - single exposure : Remarks: No data available
STOT - repeated exposure : Remarks: No data available

Repeated dose toxicity

Product:

Aspiration toxicity : Remarks: No data available

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine: No aspiration toxicity classification

Further information

Product:

: Remarks: No data available

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12: Ecological information

12:1 Toxicity

Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 110 mg/l
: Exposure time: 96 h
: Test Type: semi-static test
: Method: Directive 67/548/EEC, Annex V, C.1.
: GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 23 mg/l
: Exposure time: 48 h
: Test Type: static test
: Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae : ErC50 (Scenedesmus capricornutum (fresh water algae)): > : 50 mg/l
: Exposure time: 72 h
: Test Type: static test
: Method: Directive 67/548/EEC, Annex V, C.3.
: GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 3 mg/l
: Exposure time: 21 d
: Species: Daphnia magna (Water flea)
: Test Type: semi-static test
: GLP: yes

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Poly[oxy(methyl-1,2-ethanediyl)], α -hydro- ω -(2-aminomethylethoxy)-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
 : Exposure time: 96 h
 : Test Type: static test
 : Method: OECD Test Guideline 203
 : GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 13 mg/l
 : Exposure time: 48 h
 : Test Type: static test
 : Method: OECD Test Guideline 202
 : GLP: yes

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 4,4 mg/l
 : Exposure time: 72 h
 : Test Type: static test
 : Method: OECD Test Guideline 201
 : GLP: yes
 : NOEC (Pseudokirchneriella subcapitata (green algae)): 1 mg/l
 : Exposure time: 72 h
 : Test Type: static test
 : Method: OECD Test Guideline 201
 : GLP: yes

benzyl alcohol:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 230 mg/l
 : Exposure time: 48 h
 : Method: OECD Test Guideline 202
 : GLP: yes

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l
 : Exposure time: 72 h
 : Test Type: static test
 : Method: OECD Test Guideline 201
 : GLP: yes

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12:2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical
Removability : Remarks: No data available

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Biodegradability : Test Type: aerobic
Result : Not readily biodegradable.
Method : Directive 67/548/EEC Annex V, C.4.A.
GLP : Yes

Poly[oxy(methyl-1,2-ethanediyl)], α -hydro- ω -(2-aminomethylethoxy)-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Biodegradability : Test Type: aerobic
Result : Not readily biodegradable.
Method : OECD Test Guideline 301F
GLP : Yes

12:3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Partition coefficient: noctanol/
Water : log Pow: 0,99
Method : OECD Test Guideline
GLP 107 : Yes

Poly[oxy(methyl-1,2-ethanediyl)], α -hydro- ω -(2-aminomethylethoxy)-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Partition coefficient: noctanol/
Water : log Pow:
-1,13 (20 °C) : pH: 12,7
: GLP: yes

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12:4 Mobility in soil

No data available

12:5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12:6 Other adverse effects

Product:

Additional ecological Information : Remarks: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13: Disposal considerations

13:1 Waste treatment methods

Product : In accordance with local and national regulations.
: Container hazardous when empty.
: Do not dispose of with domestic refuse.
: Do not mix waste streams during collection.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14: Transport information

14:1 UN number

ADR/RID/ADN : UN 2735

IMDG : : UN 2735

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IATA

25.11.2020 : UN 2735

14:2 UN proper shipping name

ADR/RID/ADN

: AMINES, LIQUID, CORROSIVE, N.O.S.
(Cyclohexanamine, 4,4'-methylenebis)

IMDG

: AMINES, LIQUID, CORROSIVE, N.O.S.
(Cyclohexanamine, 4,4'-methylenebis)

IATA

: Amines, liquid, corrosive, n.o.s.
(Cyclohexanamine, 4,4'-methylenebis)

14:3 Transport hazard class(es)

ADR/RID/ADN

: 8

IMDG

: 8

IATA

: 8

14:4 Packing group

ADR/RID/ADN

Packing group

: III

Classification Code

: C7

Hazard Identification Number

: 80

Labels

: 8

Tunnel restriction code

: E

IMDG

Packing group

: III

Labels

: 8

EmS Code

: F-A, S-B

Remarks

: IMDG Code segregation group 18 - Alkalies

IATA

Packing instruction (cargo aircraft)

: 856

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Packing instruction
(passenger aircraft) : 852

Packing group : III

Labels : 8

14:5 Environmental hazards ADR/

RID/ADN

Environmentally hazardous **IMDGo**

Marine pollutant

IATA : no

Environmentally hazardous

14:6 Special precautions for user no

Remarks

: The transport of dangerous goods, including their loading and unloading, must be done by people who received the necessary training required by Modal Regulations.

14:7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not

applicable for product as supplied.

15: Regulatory information

15:1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

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REACH - List of substances subject to authorisation
(Annex XIV)

: Not applicable

Regulation (EC) No 649/2012 of the European Parliament and
the Council concerning the export and import of dangerous
chemicals

: Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and
of the Council on the control of major-accident hazards
involving
dangerous substances.

: Not applicable

15:2 Chemical safety assessment

Not applicable

16: Other information

Full text of H-Statements

H302	: Harmful if swallowed.
H312	: Harmful in contact with skin.
H314	: Causes severe skin burns and eye damage.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H373	: May cause damage to organs through prolonged or repeated exposure if swallowed.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Skin Corr.	: Skin corrosion
Skin Sens.	: Skin sensitisation
STOT RE	: Specific target organ toxicity - repeated exposure

Further information

Training advice : Provide adequate information, instruction and training
for operators.

MATERIAL SAFETY DATA SHEET

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