

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830

SAFETY DATA SHEET

FOR PROFESSIONAL and/or INDUSTRIAL USE ONLY

EPIKURE™ Curing Agent MGS LH 287

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

1.1 Product identifier

Product name : EPIKURE™ Curing Agent MGS LH 287
SDS Number : 16S-00027
Index number : 612-110-00-1
EC number : 229-962-1
CAS number : 6864-37-5
REACH Registration number : 01-2119497829-12-XXXX

Product type : Curing Agent

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Epoxy Resin Systems

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier/Importer : Westlake Epoxy B.V.
Seattleweg 17
3195 ND Pernis - Rotterdam
The Netherlands

Contact person : epoxyservice@westlake.com
Telephone : General information
+31 (0)10 295 4000

1.4

Emergency telephone number
Supplier : CARECHEM24
Telephone number : +44 (0) 1235 239 670

SECTION 2: Hazards identification


2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4 H302
Acute Tox. 3 H311
Acute Tox. 2 H330
Skin Corr./Irrit. 1A H314
Eye Dam./Irrit. 1 H318
STOT RE 2 H373
Aquatic Chronic 2 H411

See Section 16 for the full text of the H statements declared above.

2.2 Label elements

Hazard pictograms : 

Signal word : Danger

Hazard statements : Harmful if swallowed.
Toxic in contact with skin.
Causes severe skin burns and eye damage.
Fatal if inhaled.
May cause damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves, protective clothing and eye or face protection.
In case of inadequate ventilation wear respiratory protection.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Do not breathe vapor.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response : Collect spillage.
IF INHALED:
Remove person to fresh air and keep comfortable for breathing.
Immediately call a POISON CENTER or doctor.
IF SWALLOWED:
Immediately call a POISON CENTER or doctor.
Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair):
Take off immediately all contaminated clothing. Rinse skin with water.
Immediately call a POISON CENTER or doctor.
Wash contaminated clothing before reuse.
IF ON SKIN:
Call a POISON CENTER or doctor if you feel unwell.
Wash with plenty of water.
IF IN EYES:
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)

Supplemental label elements : Not applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII : Not listed

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : Not listed

Other hazards which do not result in classification :

Other hazards which do not result in classification :

SECTION 3: Composition/information on ingredients

3.1 Substances : Mono-constituent substance

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	RRN : 01-2119497829-12 EC : 229-962-1 CAS : 6864-37-5 Index : 612-110-00-1	>= 90 - 100	Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT RE 2, H373 (adrenal, blood system, heart, kidneys, liver) Aquatic Chronic 2, H411	[A]

Type

[A] Constituent

[B] Impurity

[C] Stabilizing additive

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses.

- Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first aid personnel** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
Inhalation : Fatal if inhaled.
Skin contact : Causes severe burns. Toxic in contact with skin.
Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness

blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Additional information : Not available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see section 8 of SDS). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available
Industrial sector specific solutions : Not available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNEL/DMEL Summary : Not available

PNEC Summary : Not available

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering

the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Material: 730 Camatril

Minimum break through time: 480 min

Material: 898 Butoject

Minimum break through time: 480 min

Producer: This recommendation is valid only for our Product as delivered. If this product will be mixed with other substances you need to contact a supplier of CE approved protective gloves (e.g. KCL GmbH, D-36124 Eichenzell, Tel. 0049 (0) 6659 87300, Fax. 0049 (0) 6659 87155, email: vertrieb@kcl.de).

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter, ABEK-P3 (EN14387)
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid
- Color** : Bluish-grey.
- Odor** : Amine-like.
- Odor threshold** : Not available (not measured)
- pH** : 11 [Conc. (% w/w): 3,6 g/l]
- Melting point/freezing point** : Not available (not measured)
- Initial boiling point and boiling range** : Approx. 347 °C
- Flash point** : Approx. 173 °C (DIN 51758)
- Evaporation rate** : Not available (not measured)
- Upper/lower flammability or explosive limits** : **Lower:** Not available (not measured)
Upper: Not available (not measured)
- Vapor pressure** : Not available (not measured)

Vapor density	:	Not available (not measured)
Relative density	:	0,9456 @ 20 °C
Solubility(ies)	:	Not available (not measured)
Solubility in water	:	Insoluble
Partition coefficient: n-octanol/water	:	Not applicable.
Auto-ignition temperature	:	Not available (not measured)
Decomposition temperature	:	Not available (not measured)
Viscosity	:	Dynamic: 142 mPa·s @ 20 °C (ISO 9371)
		Kinematic: Not available (not measured)
Explosive properties	:	Not available (not measured)
Oxidizing properties	:	Not available (not measured)

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : Stable under normal conditions.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : Keep away from heat, sparks, flame and other ignition sources.
- 10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions:
acids
Reactive or incompatible with the following materials:
copper
strong acids,
oxidising agents
brass
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)				
	LD50 Oral	Rat	> 320 - 460 mg/kg	-
	LC50 Inhalation	Rat	0,42 mg/l	4 h
	LD50 Dermal	Rabbit	> 200 - 400 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
EPIKURE™ Curing Agent MGS LH 287	500 mg/kg	300 mg/kg	N/A	N/A	0,42 mg/l
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	500 mg/kg	300 mg/kg	N/A	N/A	0,42 mg/l

Irritation/Corrosion

:

Sensitization

Mutagenicity

Carcinogenicity

Reproductive toxicity

Teratogenicity

Specific target organ toxicity (single exposure)

Not available

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	Category 2	-	adrenal, blood system, heart, kidneys, liver

Aspiration hazard

Not available

Information on likely routes of exposure : Not available

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Fatal if inhaled.
Skin contact : Causes severe burns. Toxic in contact with skin.
Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain
 watering
 redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 pain or irritation

Ingestion : redness
blistering may occur
Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available
Potential delayed effects : Not available

Long term exposure

Potential immediate effects : Not available
Potential delayed effects : Not available

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards. No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)			
	Acute LC50 31,6 mg/l	Fish - Ide, Silver or Golden Orfe	96 h
	Acute EC50 4,6 mg/l	Aquatic invertebrates. Water flea	48 h
	Acute EC50 > 5 mg/l	Aquatic plants - Green algae	72 h

12.2 Persistence and degradability

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	2,3	< 60 <= 6	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available
Mobility : Not available

12.5 Results of PBT and vPvB assessment

PBT : PBT: Specified
vPvB : vPvB: Specified

12.6 Other adverse effects : No known significant effects or critical hazards.
No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulatory information	14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group
ADR/ADN	2922	CORROSIVE LIQUID, TOXIC, N.O.S. (2,2'-DIMETHYL-4,4'METHYLENEBIS(CYCLOHEXYLAMINE))	8 (6.1)	II
RID	2922	CORROSIVE LIQUID, TOXIC, N.O.S. (2,2'-DIMETHYL-4,4'METHYLENEBIS(CYCLOHEXYLAMINE))	8 (6.1)	II

ICAO/IATA	2922	CORROSIVE LIQUID, TOXIC, N.O.S. (2,2'-DIMETHYL- 4,4'METHYLENEBIS(CYCLOHEX YLAMINE))	8 (6.1)	II
IMO/IMDG	2922	CORROSIVE LIQUID, TOXIC, N.O.S. (2,2'-DIMETHYL- 4,4'METHYLENEBIS(CYCLOHEX YLAMINE))	8 (6.1)	II

14.5. Environmental hazards

Environmentally hazardous and/or Marine Pollutant : Yes.



14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)
Annex XIV - List of substances subject to authorization
Substances of very high concern

Carcinogen: Not listed

Mutagen: Not listed

Toxic to reproduction: Not listed

PBT: Not listed

vPvB: Not listed

Other EU regulations

REACH Status : The substance(s) in this product has (have) been Registered, or are exempted from registration, according to Regulation (EC) No. 1907/2006 (REACH).

Aerosol dispensers : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
H2
E2

National regulations

International regulations

- International lists** :
- Canada inventory All components are listed or exempted.
 - Australia inventory (AIIC) All components are listed or exempted.
 - Canada inventory All components are listed or exempted.
 - Japan inventory All components are listed or exempted.
 - China inventory (IECSC) All components are listed or exempted.
 - Korea inventory (KECI) All components are listed or exempted.
 - New Zealand Inventory (NZIoC) All components are listed or exempted.
 - Philippines inventory (PICCS) All components are listed or exempted.
 - United States inventory (TSCA 8b) All components are active or exempted.
 - Taiwan inventory (TCSI) All components are listed or exempted.
 - Thailand inventory Not determined.
 - Vietnam inventory Not determined.
 - Mexico inventory Not determined.

**Chemical Weapons Convention
List Schedule I Chemicals** : Not listed

**Chemical Weapons Convention
List Schedule II Chemicals** : Not listed

**Chemical Weapons Convention
List Schedule III Chemicals** : Not listed

: Not listed

- 15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

- Abbreviations and acronyms** :
- ATE = Acute Toxicity Estimate
 - CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 - DNEL = Derived No Effect Level
 - DMEL = Derived Minimal Effect Level
 - EUH statement = CLP-specific Hazard statement
 - PNEC = Predicted No Effect Concentration
 - RRN = REACH Registration Number
 - PBT = Persistent, Bioaccumulative and Toxic
 - vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox., 4, H302	Calculation method
Acute Tox., 3, H311	Calculation method
Acute Tox., 2, H330	Calculation method
Skin Corr./Irrit. 1A, H314	Calculation method

Eye Dam./Irrit. 1, H318	Calculation method
STOT RE 2, H373	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H302 (oral)	Harmful if swallowed.
H311 (dermal)	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H330 (inhalation)	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY Category 2
Acute Tox. 3	ACUTE TOXICITY Category 3
Acute Tox. 4	ACUTE TOXICITY Category 4
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) Category 2
Eye Dam./Irrit. 1	SERIOUS EYE DAMAGE/EYE IRRITATION Category 1
Skin Corr./Irrit. 1A	SKIN CORROSION/IRRITATION Category 1A
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE Category 2
Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Skin Corr./Irrit. 1A, H314	SKIN CORROSION/IRRITATION - Category 1A
Eye Dam./Irrit. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Acute Tox. 2, H330	ACUTE TOXICITY (inhalation) - Category 2
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
Aquatic Chronic 2, H411	AQUATIC HAZARD (LONG-TERM) - Category 2

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Notice to reader

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use,

processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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