



A Group Company of MITSUBISHI CHEMICAL

2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSilANE

Safety Data Sheet SIE4670.0

Issue date: 22/09/2014

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Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Substance
 Physical state : Liquid
 Substance name : 2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSilANE
 Product code : SIE4670.0
 Formula : C₁₁H₂₂O₄Si
 Synonyms : (2-TRIMETHOXYSiLYLETHYL)CYCLOHEXYLOXIRANE
 Chemical family : ORGANOMETHOXYSilANE

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture : Chemical intermediate

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet**GELEST, INC.**

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 Morrisville, PA 19067

USA

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1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Serious eye damage/eye irritation, Category 2 H319
 Germ cell mutagenicity, Category 2 H341
 Carcinogenicity, Category 2 H351
 Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS07



GHS08

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H319 - Causes serious eye irritation.
 H341 - Suspected of causing genetic defects.

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Precautionary statements (CLP)

H351 - Suspected of causing cancer.

- : P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P264 - Wash hands thoroughly after handling.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

| | |
|----------------|---|
| Substance type | : Multi-constituent |
| Name | : 2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSIANE |
| CAS-No. | : 3388-04-3 |
| EC-No. | : 222-217-1 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|-------|---|
| 2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane | (CAS-No.) 3388-04-3 (EC-No.) 222-217-1 | > 97 | Eye Irrit. 2, H319 Muta. 2, H341 Carc. 2, H351 |
| Methanol | (CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X | < 0.5 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 STOT SE 1, H370 |

Specific concentration limits:

| Name | Product identifier | Specific concentration limits |
|----------|--|--|
| Methanol | (CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X | (3 \leq C < 10) STOT SE 2, H371 (10 \leq C < 100) STOT SE 1, H370 |

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice. |
| First-aid measures after skin contact | : Wash with plenty of water/.... |
| First-aid measures after eye contact | : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. |
| First-aid measures after ingestion | : Never give anything by mouth to an unconscious person. Get medical advice/attention. |

4.2. Most important symptoms and effects, both acute and delayed

| | |
|-------------------------------------|--|
| Symptoms/effects after inhalation | : May cause irritation to the respiratory tract. Overexposure may cause: Cough. Headache. Nausea. |
| Symptoms/effects after skin contact | : May cause skin irritation. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |
| Symptoms/effects after ingestion | : Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness. |
| Chronic symptoms | : On contact with water this compound liberates methanol which is known to have a chronic effect on the central nervous system. |

4.3. Indication of any immediate medical attention and special treatment needed

NOTE TO PHYSICIAN: This product reacts with water in the acid contents of the stomach to form methanol. The combination of visual disturbances, metabolic acidosis and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 mls/hour) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated with

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intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters

Firefighting instructions : Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapour and mist.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapour and mist. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.

Incompatible materials : Amines. Moisture. Water :

Storage area : Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Methanol (67-56-1) | | |
|--------------------|------------------------|------------------------|
| EU | IOEL TWA | 260 mg/m ³ |
| EU | IOEL TWA [ppm] | 200 ppm |
| Austria | MAK (OEL TWA) | 260 mg/m ³ |
| Austria | MAK (OEL TWA) [ppm] | 200 ppm |
| Austria | MAK (OEL STEL) | 1040 mg/m ³ |
| Austria | MAK (OEL STEL) [ppm] | 800 ppm |
| Belgium | OEL TWA | 266 mg/m ³ |
| Belgium | OEL TWA [ppm] | 200 ppm |
| Belgium | OEL STEL | 333 mg/m ³ |
| Belgium | OEL STEL [ppm] | 250 ppm |
| Bulgaria | OEL TWA | 260 mg/m ³ |
| Bulgaria | OEL TWA [ppm] | 200 ppm |
| Cyprus | OEL TWA | 260 mg/m ³ |
| Cyprus | OEL TWA [ppm] | 200 ppm |
| France | VLE (OEL C/STEL) | 1300 mg/m ³ |
| France | VLE (OEL C/STEL) [ppm] | 1000 ppm |

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| Methanol (67-56-1) | | |
|------------------------------|---------------------------|---|
| France | VME (OEL TWA) | 260 mg/m ³ (restrictive limit) |
| France | VME (OEL TWA) [ppm] | 200 ppm (restrictive limit) |
| Germany | AGW (OEL TWA) [1] | 270 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Germany | AGW (OEL TWA) [2] | 200 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Germany | Biological limit value | 30 mg/l (Medium: urine - Time: end of shift - Parameter: Methanol) 30 mg/l (Medium: urine - Time: end of several shifts - Parameter: Methanol (for long-term exposures)) |
| Gibraltar | OEL TWA | 260 mg/m ³ |
| Gibraltar | OEL TWA [ppm] | 200 ppm |
| Greece | OEL TWA | 260 mg/m ³ |
| Greece | OEL TWA [ppm] | 200 ppm |
| Greece | OEL STEL | 325 mg/m ³ |
| Greece | OEL STEL [ppm] | 250 ppm |
| Italy - Portugal - USA ACGIH | ACGIH OEL TWA [ppm] | 200 ppm |
| Italy - Portugal - USA ACGIH | ACGIH OEL STEL [ppm] | 250 ppm |
| Italy | OEL TWA | 260 mg/m ³ |
| Italy | OEL TWA [ppm] | 200 ppm |
| Latvia | OEL TWA | 260 mg/m ³ |
| Latvia | OEL TWA [ppm] | 200 ppm |
| USA IDLH | IDLH [ppm] | 6000 ppm |
| USA NIOSH | NIOSH REL TWA | 260 mg/m ³ |
| USA NIOSH | NIOSH REL TWA [ppm] | 200 ppm |
| USA NIOSH | NIOSH REL STEL | 325 mg/m ³ |
| USA NIOSH | NIOSH REL STEL [ppm] | 250 ppm |
| USA OSHA | OSHA PEL TWA [1] | 260 mg/m ³ |
| USA OSHA | OSHA PEL TWA [2] | 200 ppm |
| Spain | VLA-ED (OEL TWA) [1] | 266 mg/m ³ (indicative limit value) |
| Spain | VLA-ED (OEL TWA) [2] | 200 ppm (indicative limit value) |
| Switzerland | KZGW (OEL STEL) | 1040 mg/m ³ |
| Switzerland | KZGW (OEL STEL) [ppm] | 800 ppm |
| Switzerland | MAK (OEL TWA) [1] | 260 mg/m ³ |
| Switzerland | MAK (OEL TWA) [2] | 200 ppm |
| Netherlands | TGG-8u (OEL TWA) | 133 mg/m ³ |
| Netherlands | TGG-8u (OEL TWA) [ppm] | 100 ppm |
| United Kingdom | WEL TWA (OEL TWA) [1] | 266 mg/m ³ |
| United Kingdom | WEL TWA (OEL TWA) [2] | 200 ppm |
| United Kingdom | WEL STEL (OEL STEL) | 333 mg/m ³ |
| United Kingdom | WEL STEL (OEL STEL) [ppm] | 250 ppm |
| Czech Republic | PEL (OEL TWA) | 250 mg/m ³ |
| Denmark | OEL TWA [1] | 260 mg/m ³ |
| Denmark | OEL TWA [2] | 200 ppm |
| Finland | HTP (OEL TWA) [1] | 270 mg/m ³ |
| Finland | HTP (OEL TWA) [2] | 200 ppm |
| Finland | HTP (OEL STEL) | 330 mg/m ³ |
| Finland | HTP (OEL STEL) [ppm] | 250 ppm |
| Hungary | AK (OEL TWA) | 260 mg/m ³ |
| Ireland | OEL TWA [1] | 260 mg/m ³ |
| Ireland | OEL TWA [2] | 200 ppm |
| Ireland | OEL STEL | 780 mg/m ³ (calculated) |
| Ireland | OEL STEL [ppm] | 600 ppm (calculated) |

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| Methanol (67-56-1) | | |
|--------------------|--------------------------------|--|
| Lithuania | IPRV (OEL TWA) | 260 mg/m ³ |
| Lithuania | IPRV (OEL TWA) [ppm] | 200 ppm |
| Malta | OEL TWA | 260 mg/m ³ |
| Malta | OEL TWA [ppm] | 200 ppm |
| Norway | Grenseverdi (OEL TWA) [1] | 130 mg/m ³ |
| Norway | Grenseverdi (OEL TWA) [2] | 100 ppm |
| Norway | Korttidsverdi (OEL STEL) | 130 mg/m ³ |
| Norway | Korttidsverdi (OEL STEL) [ppm] | 100 ppm |
| Poland | NDS (OEL TWA) | 100 mg/m ³ |
| Poland | NDSch (OEL STEL) | 300 mg/m ³ |
| Romania | OEL TWA | 260 mg/m ³ |
| Romania | OEL TWA [ppm] | 200 ppm |
| Romania | OEL STEL [ppm] | 5 ppm |
| Slovakia | NPHV (OEL TWA) [1] | 260 mg/m ³ |
| Slovakia | NPHV (OEL TWA) [2] | 200 ppm |
| Sweden | NGV (OEL TWA) | 250 mg/m ³ |
| Sweden | NGV (OEL TWA) [ppm] | 200 ppm |
| Sweden | KTV (OEL STEL) | 350 mg/m ³ |
| Sweden | KTV (OEL STEL) [ppm] | 250 ppm |
| Canada (Quebec) | VECD (OEL STEL) | 328 mg/m ³ |
| Canada (Quebec) | VECD (OEL STEL) [ppm] | 250 ppm |
| Canada (Quebec) | VEMP (OEL TWA) | 262 mg/m ³ |
| Canada (Quebec) | VEMP (OEL TWA) [ppm] | 200 ppm |
| Australia | OES TWA [1] | 262 mg/m ³ |
| Australia | OES TWA [2] | 200 ppm |
| Australia | OES STEL | 328 mg/m ³ |
| Australia | OES STEL [ppm] | 250 ppm |
| Portugal | OEL TWA | 260 mg/m ³ (indicative limit value) |
| Portugal | OEL TWA [ppm] | 200 ppm (indicative limit value) |
| Portugal | OEL STEL [ppm] | 250 ppm |
| Portugal | OEL chemical category | skin - potential for cutaneous exposure indicative limit value |

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

NIOSH-certified organic vapor (black cartridge) respirator.



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------------|
| Physical state | : Liquid |
| Appearance | : Clear liquid. |
| Molecular mass | : 246.38 g/mol |
| Colour | : Straw. |
| Odour | : Mild. |
| Odour threshold | : No data available |
| Refractive index | : 1.449 |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : < 0 °C |
| Boiling point | : 95 – 97 °C @ 0.25 mm Hg |
| Flash point | : 146 °C |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : 10 mm Hg @ 152°C |
| Relative vapour density at 20 °C | : > 1 |
| Relative density | : 1.065 |
| Solubility | : Reacts with water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Partition coefficient n-octanol/water (Log Kow) | : No data available |
| Viscosity, kinematic | : 5.2 cSt |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Can react exothermically with amines.

10.2. Chemical stability

Stable in sealed containers.

10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating methanol. Can polymerize (non-hazardous) in the presence of weak acids.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Amines. Moisture. Water :

10.6. Hazardous decomposition products

Methanol. Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSILANE (3388-04-3)

| | |
|---------------|---------|
| LD50 oral rat | 8 ml/kg |
|---------------|---------|

Methanol (67-56-1)

| | |
|-----------------------------|--------------------------------|
| LC50 Inhalation - Rat [ppm] | 22500 ppm (Exposure time: 8 h) |
| ATE CLP (oral) | 100 mg/kg bodyweight |
| ATE CLP (dermal) | 300 mg/kg bodyweight |
| ATE CLP (vapours) | 3 mg/l/4h |

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2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane (3388-04-3)

| | |
|----------------|------------------------|
| LD50 oral rat | 12300 mg/kg |
| ATE CLP (oral) | 12300 mg/kg bodyweight |

| | |
|-------------------------------------|--|
| Skin corrosion/irritation | : Not classified Skin Irritation - rabbit: 500 mg open: mild irritant effect |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Suspected of causing genetic defects. Epoxycyclohexyltrimethoxysilane has been found to be mutagenic in Ames in vitro screening, sister chromatid exchange test in mouse lymphoma cells, unscheduled DNA synthesis in human WI-38 cells, and a forward gene mutation assay in mouse lymphoma cells. |
| Carcinogenicity | : Suspected of causing cancer. This material was shown to induce a low incidence of squamous cell carcinomas in a study involving chronic recurrent application of the material to the skin of mice. |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/effects after inhalation | : May cause irritation to the respiratory tract. Overexposure may cause: Cough. Headache. Nausea. |
| Symptoms/effects after skin contact | : May cause skin irritation. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |
| Symptoms/effects after ingestion | : Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness. |
| Chronic symptoms | : On contact with water this compound liberates methanol which is known to have a chronic effect on the central nervous system. |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|------------------|
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified |

Methanol (67-56-1)

| | |
|-----------------|--|
| LC50 - Fish [1] | 28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| LC50 - Fish [2] | > 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Methanol (67-56-1)

| | |
|---|-------|
| BCF - Fish [1] | < 10 |
| Partition coefficient n-octanol/water (Log Pow) | -0.77 |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

| | |
|-----------------------|---|
| Other adverse effects | : This substance may be hazardous to the environment. |
|-----------------------|---|

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--|---|
| Product/Packaging disposal recommendations | : May be incinerated. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.. |
| Ecology - waste materials | : Avoid release to the environment. |

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SECTION 14: Transport information

14.1. UN number

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number

| | |
|---------------|------------------|
| UN-No. (ADR) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |
| UN-No. (ADN) | : Not applicable |
| UN-No. (RID) | : Not applicable |

14.2. UN proper shipping name

| | |
|-----------------------------|------------------|
| Proper Shipping Name (ADR) | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |
| Proper Shipping Name (ADN) | : Not applicable |
| Proper Shipping Name (RID) | : Not applicable |

14.3. Transport hazard class(es)

ADR

| | |
|----------------------------------|------------------|
| Transport hazard class(es) (ADR) | : Not applicable |
|----------------------------------|------------------|

IMDG

| | |
|-----------------------------------|------------------|
| Transport hazard class(es) (IMDG) | : Not applicable |
|-----------------------------------|------------------|

IATA

| | |
|-----------------------------------|------------------|
| Transport hazard class(es) (IATA) | : Not applicable |
|-----------------------------------|------------------|

ADN

| | |
|----------------------------------|------------------|
| Transport hazard class(es) (ADN) | : Not applicable |
|----------------------------------|------------------|

RID

| | |
|----------------------------------|------------------|
| Transport hazard class(es) (RID) | : Not applicable |
|----------------------------------|------------------|

14.4. Packing group

| | |
|----------------------|------------------|
| Packing group (ADR) | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |
| Packing group (ADN) | : Not applicable |
| Packing group (RID) | : Not applicable |

14.5. Environmental hazards

| | |
|-------------------------------|--|
| Dangerous for the environment | : No |
| Marine pollutant | : No |
| Other information | : No supplementary information available |

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSILANE is not on the REACH Candidate List

2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSILANE is not on the REACH Annex XIV List

2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSILANE is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSILANE is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Regulatory reference : WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 10379)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|--|--|
| | Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor |
|--|--|

Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

| | |
|----------------------------------|---|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3 |
| Acute Tox. 3 (Inhalation:vapour) | Acute toxicity (inhalation:vapour) Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Carc. 2 | Carcinogenicity, Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| H225 | Highly flammable liquid and vapour. |
| H301 | Toxic if swallowed. |

2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXYSILANE

Safety Data Sheet

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| H311 | Toxic in contact with skin. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H341 | Suspected of causing genetic defects. |
| H351 | Suspected of causing cancer. |
| H370 | Causes damage to organs. |
| H371 | May cause damage to organs. |
| Muta. 2 | Germ cell mutagenicity, Category 2 |
| STOT SE 1 | Specific target organ toxicity — single exposure, Category 1 |
| STOT SE 2 | Specific target organ toxicity — Single exposure, Category 2 |

SDS EU (REACH Annex II) - Custom

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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