



N,N'-BIS[3-(TRIMETHOXYSILYL)PROPYL] ETHYLENEDIAMINE, 62% in methanol

Safety Data Sheet SIB1834.0

Date of issue: 07/01/2015 Version: 1.0

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

1.1. Product identifier

| | |
|-----------------|--|
| Product form | : Mixture |
| Physical state | : Liquid |
| Product name | : N,N'-BIS[3-(TRIMETHOXYSILYL)PROPYL] ETHYLENEDIAMINE, 62% in methanol |
| Product code | : SIB1834.0 |
| Formula | : C ₁₄ H ₃₆ N ₂ O ₆ Si ₂ |
| Synonyms | : BIS(TRIMETHOXYSILYLPROPYL)ETHYLENEDIAMINE; 1,2-BIS[(3-TRIMETHOXYSILYL)PROPYLAMINO]ETHANE |
| 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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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]

| | |
|---|------|
| Flammable liquids, Category 2 | H225 |
| Acute toxicity (oral), Category 3 | H301 |
| Acute toxicity (dermal), Category 3 | H311 |
| Acute toxicity (inhalation:vapour) Category 3 | H331 |
| Skin corrosion/irritation, Category 2 | H315 |
| Serious eye damage/eye irritation, Category 1 | H318 |
| Skin sensitisation, Category 1 | H317 |
| Specific target organ toxicity — Single exposure, Category 1 | H370 |
| Specific target organ toxicity — Single exposure, Category 3, | H335 |
| Respiratory tract irritation | |

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

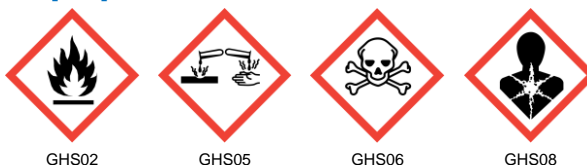
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2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

N,N'-Bis[(3-trimethoxysilyl)propyl]ethylenediamine; Methanol

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour.
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H370 - Causes damage to organs.

Precautionary statements (CLP) :

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 - Ground/bond container and receiving equipment.
P264 - Wash hands thoroughly after handling.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P310 - Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|--|------|---|
| N,N'-Bis[(3-trimethoxysilyl)propyl]ethylenediamine | (CAS-No.) 68845-16-9 (EC-No.) 272-453-4 | > 60 | Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT SE 3, H335 |
| Methanol | (CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X | < 40 | 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 =<C < 10) STOT SE 2, H371 (10 =<C < 100) STOT SE 1, H370 |

Full text of H-statements: see section 16

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/.... If skin irritation or rash occurs: Get immediate medical advice/attention.

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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 respiratory irritation. Overexposure may cause: Nausea. Headache. Cough.

Symptoms/effects after skin contact : Causes skin irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

Chronic symptoms : On contact with water this compound liberates methanol which is known to have a chronic effect on the central nervous system. Methanol may effect the central nervous system resulting in persistent or recurring headaches or impaired vision.

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

NOTE TO PHYSICIAN: 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 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 : Highly flammable liquid and vapour. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

Explosion hazard : May form flammable/explosive vapour-air mixture.

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

General measures : Eliminate every possible source of ignition. Use special care to avoid static electric charges.

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. Use only non-sparking tools.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

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. Use only in well ventilated areas. Use only non-sparking tools. Take precautionary measures against static discharge.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.

Storage conditions : Keep container tightly closed.

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Incompatible materials : Acids. alcohols. Moisture. Oxidizing agent. Peroxides. 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 | IOELV TWA (mg/m ³) | 260 mg/m ³ |
| EU | IOELV TWA (ppm) | 200 ppm |
| Austria | MAK (mg/m ³) | 260 mg/m ³ |
| Austria | MAK (ppm) | 200 ppm |
| Austria | MAK Short time value (mg/m ³) | 1040 mg/m ³ |
| Austria | MAK Short time value (ppm) | 800 ppm |
| Belgium | Limit value (mg/m ³) | 266 mg/m ³ |
| Belgium | Limit value (ppm) | 200 ppm |
| Belgium | Short time value (mg/m ³) | 333 mg/m ³ |
| Belgium | Short time value (ppm) | 250 ppm |
| Bulgaria | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Bulgaria | OEL TWA (ppm) | 200 ppm |
| Cyprus | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Cyprus | OEL TWA (ppm) | 200 ppm |
| France | VLE (mg/m ³) | 1300 mg/m ³ |
| France | VLE (ppm) | 1000 ppm |
| France | VME (mg/m ³) | 260 mg/m ³ (restrictive limit) |
| France | VME (ppm) | 200 ppm (restrictive limit) |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 270 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 200 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Germany | TRGS 903 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 | Eight hours mg/m ³ | 260 mg/m ³ |
| Gibraltar | Eight hours ppm | 200 ppm |
| Greece | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Greece | OEL TWA (ppm) | 200 ppm |
| Greece | OEL STEL (mg/m ³) | 325 mg/m ³ |
| Greece | OEL STEL (ppm) | 250 ppm |
| Italy - Portugal - USA ACGIH | ACGIH TWA (ppm) | 200 ppm |
| Italy - Portugal - USA ACGIH | ACGIH STEL (ppm) | 250 ppm |
| Italy | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Italy | OEL TWA (ppm) | 200 ppm |
| Latvia | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Latvia | OEL TWA (ppm) | 200 ppm |
| USA IDLH | US IDLH (ppm) | 6000 ppm |
| USA NIOSH | NIOSH REL (TWA) (mg/m ³) | 260 mg/m ³ |
| USA NIOSH | NIOSH REL (TWA) (ppm) | 200 ppm |
| USA NIOSH | NIOSH REL (STEL) (mg/m ³) | 325 mg/m ³ |
| USA NIOSH | NIOSH REL (STEL) (ppm) | 250 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 260 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 200 ppm |
| Spain | VLA-ED (mg/m ³) | 266 mg/m ³ (indicative limit value) |
| Spain | VLA-ED (ppm) | 200 ppm (indicative limit value) |

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| Methanol (67-56-1) | | |
|--------------------|--|--|
| Switzerland | KZGW (mg/m ³) | 1040 mg/m ³ |
| Switzerland | KZGW (ppm) | 800 ppm |
| Switzerland | MAK (mg/m ³) | 260 mg/m ³ |
| Switzerland | MAK (ppm) | 200 ppm |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 133 mg/m ³ |
| Netherlands | Grenswaarde TGG 8H (ppm) | 100 ppm |
| United Kingdom | WEL TWA (mg/m ³) | 266 mg/m ³ |
| United Kingdom | WEL TWA (ppm) | 200 ppm |
| United Kingdom | WEL STEL (mg/m ³) | 333 mg/m ³ |
| United Kingdom | WEL STEL (ppm) | 250 ppm |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 250 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 260 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (ppm) | 200 ppm |
| Finland | HTP-arvo (8h) (mg/m ³) | 270 mg/m ³ |
| Finland | HTP-arvo (8h) (ppm) | 200 ppm |
| Finland | HTP-arvo (15 min) | 330 mg/m ³ |
| Finland | HTP-arvo (15 min) (ppm) | 250 ppm |
| Hungary | AK-érték | 260 mg/m ³ |
| Ireland | OEL (8 hours ref) (mg/m ³) | 260 mg/m ³ |
| Ireland | OEL (8 hours ref) (ppm) | 200 ppm |
| Ireland | OEL (15 min ref) (mg/m ³) | 780 mg/m ³ (calculated) |
| Ireland | OEL (15 min ref) (ppm) | 600 ppm (calculated) |
| Lithuania | IPRV (mg/m ³) | 260 mg/m ³ |
| Lithuania | IPRV (ppm) | 200 ppm |
| Malta | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Malta | OEL TWA (ppm) | 200 ppm |
| Norway | Grenseverdier (AN) (mg/m ³) | 130 mg/m ³ |
| Norway | Grenseverdier (AN) (ppm) | 100 ppm |
| Norway | Grenseverdier (Korttidsverdi) (mg/m ³) | 130 mg/m ³ |
| Norway | Grenseverdier (Korttidsverdi) (ppm) | 100 ppm |
| Poland | NDS (mg/m ³) | 100 mg/m ³ |
| Poland | NDSch (mg/m ³) | 300 mg/m ³ |
| Romania | OEL TWA (mg/m ³) | 260 mg/m ³ |
| Romania | OEL TWA (ppm) | 200 ppm |
| Romania | OEL STEL (ppm) | 5 ppm |
| Slovakia | NPHV (priemerná) (mg/m ³) | 260 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 200 ppm |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 250 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 200 ppm |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 350 mg/m ³ |
| Sweden | kortidsvärde (KTV) (ppm) | 250 ppm |
| Canada (Quebec) | VECD (mg/m ³) | 328 mg/m ³ |
| Canada (Quebec) | VECD (ppm) | 250 ppm |
| Canada (Quebec) | VEMP (mg/m ³) | 262 mg/m ³ |
| Canada (Quebec) | VEMP (ppm) | 200 ppm |
| Australia | TWA (mg/m ³) | 262 mg/m ³ |
| Australia | TWA (ppm) | 200 ppm |
| Australia | STEL (mg/m ³) | 328 mg/m ³ |
| Australia | STEL (ppm) | 250 ppm |
| Portugal | OEL TWA (mg/m ³) | 260 mg/m ³ (indicative limit value) |
| Portugal | OEL TWA (ppm) | 200 ppm (indicative limit value) |

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| Methanol (67-56-1) | | |
|--------------------|----------------------------|--|
| Portugal | OEL STEL (ppm) | 250 ppm |
| Portugal | OEL chemical category (PT) | 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 combination organic vapor - amine gas (brown cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---------------------------------------|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Molecular mass | : 384.62 g/mol |
| Colour | : Straw. Amber. |
| Odour | : Mild. Amine. Ammonia-like. |
| Odour threshold | : No data available |
| Refractive index | : No additional information available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : < 0 °C |
| Boiling point | : 68 °C (initial, methanol) |
| Flash point | : 20 °C |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Highly flammable liquid and vapour. |
| Vapour pressure | : 50 mm Hg @ 25° C |
| Relative vapour density at 20 °C | : 5.9 |
| Relative density | : 0.89 |
| % Volatiles | : 40 % |
| Solubility | : Reacts with water. |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : 6 - 36.5 vol % (lower; upper) |

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable in sealed containers.

10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating methanol.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Acids. alcohols. Moisture. Oxidizing agent. Peroxides. Water :

10.6. Hazardous decomposition products

Methanol. Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

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| | |
|-------------------|----------------------|
| ATE CLP (oral) | 250 mg/kg bodyweight |
| ATE CLP (dermal) | 750 mg/kg bodyweight |
| ATE CLP (vapours) | 7.5 mg/l/4h |

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 |

| | |
|-------------------------------------|---|
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Causes serious eye damage. |
| Respiratory or skin sensitisation | : May cause an allergic skin reaction. |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Causes damage to organs. May cause respiratory irritation. |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/effects after inhalation | : May cause respiratory irritation. Overexposure may cause: Nausea. Headache. Cough. |
| Symptoms/effects after skin contact | : Causes skin irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Causes serious eye damage. |
| Symptoms/effects after ingestion | : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. |
| Chronic symptoms | : On contact with water this compound liberates methanol which is known to have a chronic effect on the central nervous system. Methanol may effect the central nervous system resulting in persistent or recurring headaches or impaired vision. |
| Reason for classification | : Expert judgment |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|--------------------------|------------------|
| Acute aquatic toxicity | : Not classified |
| Chronic aquatic toxicity | : 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

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12.3. Bioaccumulative potential

| Methanol (67-56-1) | |
|--------------------|-------|
| BCF fish 1 | < 10 |
| 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 : 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.

SECTION 14: Transport information

14.1. UN number

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

14.1. UN number

| | |
|---------------|--------|
| UN-No. (ADR) | : 2924 |
| UN-No. (IMDG) | : 2924 |
| UN-No. (IATA) | : 2924 |
| UN-No. (ADN) | : 2924 |
| UN-No. (RID) | : 2924 |

14.2. UN proper shipping name

| | |
|---------------------------------------|--|
| Proper Shipping Name (ADR) | : FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Proper Shipping Name (IMDG) | : FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Proper Shipping Name (IATA) | : Flammable liquid, corrosive, n.o.s. |
| Proper Shipping Name (ADN) | : FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Proper Shipping Name (RID) | : FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Transport document description (ADR) | : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (N,N'-BIS[(3-TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE), 3 (8), II, (D/E) |
| Transport document description (IMDG) | : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (N,N'-BIS[(3-TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE), 3 (8), II |
| Transport document description (IATA) | : UN 2924 Flammable liquid, corrosive, n.o.s. (N,N'-BIS[(3-TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE), 3 (8), II |
| Transport document description (ADN) | : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (N,N'-BIS[(3-TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE), 3 (8), II |
| Transport document description (RID) | : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (N,N'-BIS[(3-TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE), 3 (8), II |

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3 (8)
Danger labels (ADR) : 3, 8



IMDG

Transport hazard class(es) (IMDG) : 3 (8)

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Danger labels (IMDG) : 3, 8



IATA

Transport hazard class(es) (IATA) : 3 (8)

Hazard labels (IATA) : 3, 8



ADN

Transport hazard class(es) (ADN) : 3 (8)

Danger labels (ADN) : 3, 8



RID

Transport hazard class(es) (RID) : 3 (8)

Danger labels (RID) : 3, 8



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

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

Classification code (ADR) : FC

Special provisions (ADR) : 274

Limited quantities (ADR) : 1I

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02

Mixed packing provisions (ADR) : MP19

Portable tank and bulk container instructions (ADR) : T11

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Portable tank and bulk container special provisions (ADR) : TP2, TP27
Tank code (ADR) : L4BH
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Special provisions for carriage - Operation (ADR) : S2, S20
Hazard identification number (Kemler No.) : 338
Orange plates :

338

2924

Tunnel restriction code (ADR) : D/E

- Transport by sea

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T11
Tank special provisions (IMDG) : TP2, TP27
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-C
Stowage category (IMDG) : B
Stowage and handling (IMDG) : SW2
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

- Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y340
PCA limited quantity max net quantity (IATA) : 0.5L
PCA packing instructions (IATA) : 352
PCA max net quantity (IATA) : 1L
CAO packing instructions (IATA) : 363
CAO max net quantity (IATA) : 5L
Special provisions (IATA) : A3
ERG code (IATA) : 3CH

- Inland waterway transport

Classification code (ADN) : FC
Special provisions (ADN) : 274
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 1

- Rail transport

Classification code (RID) : FC
Special provisions (RID) : 274
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T11

N,N'-BIS[3-(TRIMETHOXYSILYL)PROPYL] ETHYLENEDIAMINE, 62% in methanol

Safety Data Sheet

| | |
|---|-------------|
| Portable tank and bulk container special provisions (RID) | : TP2, TP27 |
| Tank codes for RID tanks (RID) | : L4BH |
| Transport category (RID) | : 2 |
| Colis express (express parcels) (RID) | : CE7 |
| Hazard identification number (RID) | : 338 |

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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance 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.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

Contains no REACH Annex XIV substances

% Volatiles : 40 %

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : N,N'-Bis[(3-trimethoxysilyl)propyl]ethylenediamine is listed

SZW-lijst van mutagene stoffen : N,N'-Bis[(3-trimethoxysilyl)propyl]ethylenediamine is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : Methanol is listed

Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed

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

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

N,N'-BIS[3-(TRIMETHOXYSILYL)PROPYL] ETHYLENEDIAMINE, 62% in methanol

Safety Data Sheet

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 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1B | Skin sensitisation, category 1B |
| STOT SE 1 | Specific target organ toxicity — Single exposure, Category 1 |
| STOT SE 2 | Specific target organ toxicity — Single exposure, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H225 | Highly flammable liquid and vapour. |
| H301 | Toxic if swallowed. |
| H311 | Toxic in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H331 | Toxic if inhaled. |
| H335 | May cause respiratory irritation. |
| H370 | Causes damage to organs. |
| H371 | May cause damage to organs. |

SDS EU (REACH Annex II) - Custom

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