

**11-BROMOUNDECYLTRICHLOROSILANE, 95%**

Safety Data Sheet SIB1908.0

Date of issue: 30/01/2015

Version: 1.0

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

Product form	: Substance
Physical state	: Liquid
Substance name	: 11-BROMOUNDECYLTRICHLOROSILANE, 95%
Product code	: SIB1908.0
Formula	: C ₁₁ H ₂₂ BrCl ₃ Si
Synonyms	: 11-TRICHLOROSILYL-1-BROMOUNDECANE
Chemical family	: ORGANOCHLOROSILANE

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.**11 East Steel Road
Morrisville, PA 19067**USA**

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info@gelestde.com - www.gelestde.com**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]**

Skin corrosion/irritation, Category 1B H314

Serious eye damage/eye irritation, Category 1 H318

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Full text of H 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) :



GHS05

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP)

: P280 - Wear protective gloves/protective clothing/eye protection/face protection.

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P260 - Do not breathe vapours.
P264 - Wash hands thoroughly after handling.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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

Substance type : Multi-constituent
Name : 11-BROMOUNDECYLTRICHLOROSILANE, 95%
CAS-No. : 79769-48-5

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
11-Bromoundecyltrichlorosilane	(CAS-No.) 79769-48-5	> 95	Skin Corr. 1B, H314 Eye Dam. 1, H318
Undecyltrichlorosilane	(CAS-No.) 18052-07-8	< 5	Skin Corr. 1B, H314 Eye Dam. 1, H318
Hydrochloric acid	(CAS-No.) 7647-01-0 (EC-No.) 231-595-7 (EC Index-No.) 017-002-00-2		Press. Gas Acute Tox. 3 (Inhalation), H331 Skin Corr. 1A, H314

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. Get medical advice/attention.

First-aid measures after skin contact : Wash with plenty of water/.... Get immediate medical advice/attention.

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 immediate 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 : Causes severe skin burns and eye damage.

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Overexposure may cause: Cough. Headache. Nausea.

Symptoms/effects after skin contact : Causes (severe) skin burns.

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

Symptoms/effects after ingestion : May be harmful if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

Unsuitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Irritating fumes of hydrogen chloride and organic acid vapors may develop when material is exposed to water or open flame.

5.3. Advice for firefighters

Firefighting instructions : Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.

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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 Heading 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 and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.

Incompatible materials : alcohols. Amines. Oxidizing agent.

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

Hydrochloric acid (7647-01-0)			
EU	IOELV TWA (mg/m ³)		8 mg/m ³
EU	IOELV TWA (ppm)		5 ppm
EU	IOELV STEL (mg/m ³)		15 mg/m ³
EU	IOELV STEL (ppm)		10 ppm
Austria	MAK (mg/m ³)		8 mg/m ³
Austria	MAK (ppm)		5 ppm
Austria	MAK Short time value (mg/m ³)		15 mg/m ³
Austria	MAK Short time value (ppm)		10 ppm
Belgium	Limit value (mg/m ³)		8 mg/m ³
Belgium	Limit value (ppm)		5 ppm
Belgium	Short time value (mg/m ³)		15 mg/m ³
Belgium	Short time value (ppm)		10 ppm
Bulgaria	OEL TWA (mg/m ³)		8 mg/m ³
Bulgaria	OEL TWA (ppm)		5 ppm
Bulgaria	OEL STEL (mg/m ³)		15 mg/m ³
Bulgaria	OEL STEL (ppm)		10 ppm
Cyprus	OEL TWA (mg/m ³)		8 mg/m ³
Cyprus	OEL TWA (ppm)		5 ppm
Cyprus	OEL STEL (mg/m ³)		15 mg/m ³
Cyprus	OEL STEL (ppm)		10 ppm
France	VLE (mg/m ³)		7.6 mg/m ³ (restrictive limit)
France	VLE (ppm)		5 ppm (restrictive limit)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)		3 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)

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Hydrochloric acid (7647-01-0)		
Germany	TRGS 900 Occupational exposure limit value (ppm)	2 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Gibraltar	Eight hours mg/m ³	8 mg/m ³
Gibraltar	Eight hours ppm	5 ppm
Gibraltar	Short-term mg/m ³	15 mg/m ³
Gibraltar	Short-term ppm	10 ppm
Greece	OEL TWA (mg/m ³)	7 mg/m ³
Greece	OEL TWA (ppm)	5 ppm
Greece	OEL STEL (mg/m ³)	7 mg/m ³
Greece	OEL STEL (ppm)	5 ppm
Italy - Portugal - USA ACGIH	ACGIH Ceiling (ppm)	2 ppm
Italy	OEL TWA (mg/m ³)	8 mg/m ³
Italy	OEL TWA (ppm)	5 ppm
Italy	OEL STEL (mg/m ³)	15 mg/m ³
Italy	OEL STEL (ppm)	10 ppm
Latvia	OEL TWA (mg/m ³)	8 mg/m ³
Latvia	OEL TWA (ppm)	5 ppm
USA IDLH	US IDLH (ppm)	50 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	7 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (ppm)	5 ppm
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	7 mg/m ³
USA OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm
Spain	VLA-ED (mg/m ³)	7.6 mg/m ³ (indicative limit value)
Spain	VLA-ED (ppm)	5 ppm (indicative limit value)
Spain	VLA-EC (mg/m ³)	15 mg/m ³
Spain	VLA-EC (ppm)	10 ppm
Switzerland	KZGW (mg/m ³)	6 mg/m ³
Switzerland	KZGW (ppm)	4 ppm
Switzerland	MAK (mg/m ³)	3 mg/m ³
Switzerland	MAK (ppm)	2 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	8 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	15 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	2 mg/m ³ (aerosol mist and gas)
United Kingdom	WEL TWA (ppm)	1 ppm (aerosol mist and gas)
United Kingdom	WEL STEL (mg/m ³)	8 mg/m ³ (aerosol mist and gas)
United Kingdom	WEL STEL (ppm)	5 ppm (aerosol mist and gas)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	8 mg/m ³
Finland	HTP-arvo (15 min)	7.6 mg/m ³ (including solution)
Finland	HTP-arvo (15 min) (ppm)	5 ppm (including solution)
Hungary	AK-érték	8 mg/m ³
Hungary	CK-érték	16 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	8 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	5 ppm
Ireland	OEL (15 min ref) (mg/m ³)	15 mg/m ³
Ireland	OEL (15 min ref) (ppm)	10 ppm
Lithuania	IPRV (mg/m ³)	8 mg/m ³
Lithuania	IPRV (ppm)	5 ppm
Lithuania	TPRV (mg/m ³)	15 mg/m ³
Lithuania	TPRV (ppm)	10 ppm
Malta	OEL TWA (mg/m ³)	8 mg/m ³
Malta	OEL TWA (ppm)	5 ppm
Malta	OEL STEL (mg/m ³)	15 mg/m ³

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Hydrochloric acid (7647-01-0)		
Malta	OEL STEL (ppm)	10 ppm
Norway	Grenseverdier (Takverdi) (mg/m ³)	7 mg/m ³
Norway	Grenseverdier (Takverdi) (ppm)	5 ppm
Poland	NDS (mg/m ³)	5 mg/m ³
Poland	NDSCh (mg/m ³)	10 mg/m ³
Romania	OEL TWA (mg/m ³)	8 mg/m ³
Romania	OEL TWA (ppm)	5 ppm
Romania	OEL STEL (mg/m ³)	15 mg/m ³
Romania	OEL STEL (ppm)	10 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	8 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	5 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	15 mg/m ³
Sweden	takgränsvärde (TGV) (mg/m ³)	8 mg/m ³
Sweden	takgränsvärde (TGV) (ppm)	5 ppm
Canada (Quebec)	PLAFOND (mg/m ³)	7.5 mg/m ³
Canada (Quebec)	PLAFOND (ppm)	5 ppm
Portugal	OEL TWA (mg/m ³)	8 mg/m ³ (indicative limit value)
Portugal	OEL TWA (ppm)	5 ppm (indicative limit value)
Portugal	OEL STEL (mg/m ³)	15 mg/m ³ (indicative limit value)
Portugal	OEL STEL (ppm)	10 ppm (indicative limit value)
Portugal	OEL - Ceilings (ppm)	2 ppm
Portugal	OEL chemical category (PT)	A4 - Not Classifiable as a Human Carcinogen

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 or face shield. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Molecular mass	: 368.64 g/mol
Colour	: Straw.
Odour	: Acrid.
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	: 172 °C @ 1 mm Hg

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Flash point	: > 110 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.1 mm Hg @ 25°C
Relative vapour density at 20 °C	: > 1
Relative density	: 1.26
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	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable in sealed containers stored under a dry inert atmosphere.

10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating hydrogen chloride.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

alcohols. Amines. Oxidizing agent.

10.6. Hazardous decomposition products

Hydrogen chloride. Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Hydrochloric acid (7647-01-0)	
LD50 oral rat	238 - 277 mg/kg
LD50 dermal rabbit	> 5010 mg/kg
LC50 inhalation rat (mg/l)	1.68 mg/l (Exposure time: 1 h)
ATE CLP (oral)	700 mg/kg bodyweight
ATE CLP (gases)	1562 ppmv/4h

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Hydrochloric acid (7647-01-0)	
IARC group	3 - Not classifiable

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	: Causes (severe) skin burns.

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Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: May be harmful if swallowed.
Reason for classification	: Expert judgment

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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)	: 2987
UN-No. (IMDG)	: 2987
UN-No. (IATA)	: 2987
UN-No. (ADN)	: 2987
UN-No. (RID)	: 2987

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: CHLOROSILANES, CORROSIVE, N.O.S.
Proper Shipping Name (IMDG)	: CHLOROSILANES, CORROSIVE, N.O.S.
Proper Shipping Name (IATA)	: Chlorosilanes, corrosive, n.o.s.
Proper Shipping Name (ADN)	: CHLOROSILANES, CORROSIVE, N.O.S.
Proper Shipping Name (RID)	: CHLOROSILANES, CORROSIVE, N.O.S.
Transport document description (ADR)	: UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. (11-BROMOUNDECYLTRICHLOROSILANE), 8, II, (E)
Transport document description (IMDG)	: UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. (11-BROMOUNDECYLTRICHLOROSILANE), 8, II
Transport document description (IATA)	: UN 2987 Chlorosilanes, corrosive, n.o.s. (11-BROMOUNDECYLTRICHLOROSILANE), 8, II
Transport document description (ADN)	: UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. (11-BROMOUNDECYLTRICHLOROSILANE), 8, II
Transport document description (RID)	: UN 2987 CHLOROSILANES, CORROSIVE, N.O.S. (11-BROMOUNDECYLTRICHLOROSILANE), 8, II

14.3. Transport hazard class(es)

ADR

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

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IMDG

Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8
Hazard labels (IATA) : 8



ADN

Transport hazard class(es) (ADN) : 8
Danger labels (ADN) : 8



RID

Transport hazard class(es) (RID) : 8
Danger labels (RID) : 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) : C3
Special provisions (ADR) : 548

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Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P010
Special packing provisions (ADR)	: RR7
Mixed packing provisions (ADR)	: MP15
Portable tank and bulk container instructions (ADR)	: T14
Portable tank and bulk container special provisions (ADR)	: TP2, TP7, TP27
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Hazard identification number (Kemler No.)	: X80
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 4W

- Transport by sea

Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P010
Tank instructions (IMDG)	: T14
Tank special provisions (IMDG)	: TP2, TP7, TP13, TP27
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: C
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Colourless liquids with a pungent odour. Immiscible with water. React violently with water or steam, evolving hydrogen chloride, an irritating and corrosive gas apparent as white fumes. When involved in a fire, evolve toxic gases. In the presence of moisture, highly corrosive to most metals. Cause burns to skin, eyes and mucous membranes.

- Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: 876
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A1
ERG code (IATA)	: 8L

- Inland waterway transport

Classification code (ADN)	: C3
Special provisions (ADN)	: 548
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

- Rail transport

Classification code (RID)	: C3
Special provisions (RID)	: 548
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P010
Mixed packing provisions (RID)	: MP15

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Portable tank and bulk container instructions (RID)	: T14
Portable tank and bulk container special provisions (RID)	: TP2, TP7, TP27
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: X80

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

11-BROMOUNDECYLTRICHLOROSILANE, 95% is not on the REACH Candidate List

11-BROMOUNDECYLTRICHLOROSILANE, 95% is not on the REACH Annex XIV List

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 : The substance is not listed

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

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige 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

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
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Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Press. Gas	Gases under pressure
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.

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SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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