

(TRICHLOROSIYL METHYL)METHYLDICHLOROSILANE, 95%

Safety Data Sheet SIT8162.2

Date of issue: 10/20/2016

Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product name	: (TRICHLOROSIYL METHYL)METHYLDICHLOROSILANE, 95%
Product code	: SIT8162.2
Product form	: Substance
Physical state	: Liquid
Formula	: C ₂ H ₅ Cl ₅ Si ₂
Synonyms	: 1,1,1,3,3-PENTACHLORO-1,3-DISILABUTANE DICHLOROMETHYL[(TRICHLOROSIYL)METHYL]SILANE (METHYLDICHLOROSIYL)(TRICHLOROSIYL)METHANE
Chemical family	: ORGANOCHLOROSILANE

1.2. Recommended use of the chemical and restrictions on use

Recommended use	: Chemical intermediate For research use only
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1.3. Details of the supplier of the safety data sheet

GELEST, INC.

11 East Steel Road
Morrisville, PA 19067
USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST
info@gelest.com - www.gelest.com

1.4. Emergency telephone number

Emergency number	: CHEMTRAC: 1-800-424-9300 (USA); +1 703-527-3887 (International)
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids Category 4	H227
Skin corrosion/irritation Category 1B	H314
Serious eye damage/eye irritation Category 1	H318

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS05

Signal word (GHS-US)	: Danger
Hazard statements (GHS-US)	: H227 - Combustible liquid H314 - Causes severe skin burns and eye damage H318 - Causes serious eye damage
Precautionary statements (GHS-US)	: P280 - Wear protective gloves/protective clothing/eye protection/face protection P210 - Keep away from heat, open flames, sparks. - No smoking P260 - Do not breathe vapors P264 - Wash hands thoroughly after handling P301 + P330 + P331 - If swallowed: rinse mouth. Do NOT induce vomiting P303 + P361 + P353 - If on skin (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing 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 doctor P363 - Wash contaminated clothing before reuse P370 + P378 - In case of fire: Use water spray, alcohol resistant foam, carbon dioxide, dry chemical to extinguish P403 + P235 - Keep in a cool place P405 - Store locked up

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P321 - Specific treatment (see first aid instructions on this label)
P501 - Dispose of contents/container to licensed waste disposal facility

2.3. Hazards not otherwise classified (HNOC)

Other hazards not contributing to the classification

: Hydrogen chloride may be formed by reaction with water and moisture in air. The US OSHA PEL (TWA) for hydrogen chloride is 5 ppm.

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Substance type

: Mono-constituent

Name

: (TRICHLOROSIYL METHYL)METHYLDICHLOROSILANE, 95%

CAS No

: 18105-27-6

Name	Product identifier	%	GHS-US classification
(Trichlorosilylmethyl)methyldichlorosilane	(CAS No) 18105-27-6	95 - 100	Flam. Liq. 4, H227 Skin Corr. 1B, H314 Eye Dam. 1, H318

Full text of hazard classes and H-statements : see section 16

3.2. Mixture

Not applicable

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 victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact

: Wash with plenty of soap and 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 if you feel unwell.

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

Symptoms/injuries

: Causes severe skin burns and eye damage.

Symptoms/injuries after inhalation

: May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact

: Causes (severe) skin burns.

Symptoms/injuries after eye contact

: Causes serious eye damage.

Symptoms/injuries after ingestion

: May be harmful if swallowed.

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

Note to physician- Eyes: If pain persists, repeat washing for 15 minutes or until pH of eye returns to normal. If great pain persists, place one (1) drop Benoxinate solution (0.4%) in the affected eye.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Water spray. Alcohol-resistant foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media

: Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard

: Combustible liquid. 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

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

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 vapor and mist.

Other information

: Do not direct water into an unignited spill.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

: Remove ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Protective equipment

: Wear protective equipment as described in Section 8.

Emergency procedures

: Evacuate unnecessary personnel.

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6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal 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

For containment

: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up

: Clean up any spills as soon as possible, using an absorbent material to collect it. 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

: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Precautions for safe handling

: Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and receiving equipment. Provide good ventilation in process area to prevent accumulation of vapors. Use only non-sparking tools.

Hygiene measures

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

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Keep container tightly closed. Keep in a cool place. Store locked up.

Incompatible materials

: Alcohols. Amines. Oxidizing agent.

Storage area

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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

: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. 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

: Liquid.

Molecular mass

: 267.5 g/mol

Color

: No data available

Odor

: Acrid. Similar to hydrogen chloride.

Odor threshold

: No data available

Refractive index

: 1.4692

pH

: No data available

Relative evaporation rate (butyl acetate=1)

: No data available

Melting point

: No data available

Freezing point

: No data available

Boiling point

: 183 - 185 °C

Flash point

: No data available

Auto-ignition temperature

: No data available

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Decomposition temperature	: No data available
Flammability (solid, gas)	: Combustible liquid
Vapor pressure	: No data available
Relative vapor density at 20 °C	: > 1
Relative density	: 1.4107
Solubility	: Insoluble in water. 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
Oxidizing properties	: No data available
Explosion 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
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause irritation to the respiratory tract.
Symptoms/injuries after skin contact	: Causes (severe) skin burns.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: May be harmful if swallowed.
Reason for classification	: Expert judgment

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

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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. Other adverse effects

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

Effect on ozone layer : No additional information available

Effect on the global warming : No known effects from this product.

GWPmix comment : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste 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

UN-No.(DOT) : 2987
DOT NA no. : UN2987

14.2. UN proper shipping name

Transport document description : UN2987 Chlorosilanes, corrosive, n.o.s.
((TRICHLOROSILYL METHYL)METHYLDICHLOROSILANE), 8, II
Proper Shipping Name (DOT) : Chlorosilanes, corrosive, n.o.s.
((TRICHLOROSILYL METHYL)METHYLDICHLOROSILANE)
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT) : II - Medium Danger
Hazard labels (DOT) : 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 206
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Packaging Exceptions (49 CFR 173.xxx) : None

14.3. Additional information

Emergency Response Guide (ERG) Number : 156

Other information : No supplementary information available.

Transport by sea

DOT Vessel Stowage Location : C - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Air transport

DOT Quantity Limitations Passenger aircraft/rail : Forbidden
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

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SECTION 15: Regulatory information

15.1. US Federal regulations

(TRICHLOROSIYL METHYL)METHYLDICHLOROSILANE, 95% (18105-27-6)

TSCA Exemption/Exclusion

CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States

(Trichlorosilylmethyl)methyldichlorosilane (18105-27-6)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Full text of H-phrases::

H227	Combustible liquid
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

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.

HMIS III Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical

: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Prepared by safety and environmental affairs.

Date of issue: 10/20/2016

Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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