

## SAFETY DATA SHEET

Version 8.2  
Revision Date 06/14/2021  
Print Date 08/06/2022**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Dichloromethylsilane

Product Number : 440248  
Brand : Aldrich  
CAS-No. : 75-54-7**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Synthesis of substances

**1.3 Details of the supplier of the safety data sheet**Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATESTelephone : +1 314 771-5765  
Fax : +1 800 325-5052**1.4 Emergency telephone**Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**Flammable liquids (Category 2), H225  
Chemicals which, in contact with water, emit flammable gases (Category 3), H261  
Acute toxicity, Oral (Category 3), H301  
Acute toxicity, Inhalation (Category 3), H331  
Skin corrosion (Category 1A), H314  
Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word

Danger

Aldrich - 440248

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|                            |                                                                                                                                                                            |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard statement(s)        |                                                                                                                                                                            |
| H225                       | Highly flammable liquid and vapor.                                                                                                                                         |
| H261                       | In contact with water releases flammable gas.                                                                                                                              |
| H301 + H331                | Toxic if swallowed or if inhaled.                                                                                                                                          |
| H314                       | Causes severe skin burns and eye damage.                                                                                                                                   |
| Precautionary statement(s) |                                                                                                                                                                            |
| P210                       | Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.                                                                                                        |
| P231 + P232                | Handle under inert gas. Protect from moisture.                                                                                                                             |
| P233                       | Keep container tightly closed.                                                                                                                                             |
| P240                       | Ground/bond container and receiving equipment.                                                                                                                             |
| P241                       | Use explosion-proof electrical/ ventilating/ lighting/ equipment.                                                                                                          |
| P242                       | Use only non-sparking tools.                                                                                                                                               |
| P243                       | Take precautionary measures against static discharge.                                                                                                                      |
| P261                       | Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.                                                                                                                      |
| P264                       | Wash skin thoroughly after handling.                                                                                                                                       |
| P270                       | Do not eat, drink or smoke when using this product.                                                                                                                        |
| P271                       | Use only outdoors or in a well-ventilated area.                                                                                                                            |
| P280                       | Wear protective gloves/ protective clothing/ eye protection/ face protection.                                                                                              |
| P301 + P310 + P330         | IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.                                                                                                       |
| 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 + P310         | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.                                                       |
| P305 + P351 + P338 + P310  | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. |
| P363                       | Wash contaminated clothing before reuse.                                                                                                                                   |
| P370 + P378                | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.                                                                                       |
| P402 + P404                | Store in a dry place. Store in a closed container.                                                                                                                         |
| P403 + P233                | Store in a well-ventilated place. Keep container tightly closed.                                                                                                           |
| P403 + P235                | Store in a well-ventilated place. Keep cool.                                                                                                                               |
| P405                       | Store locked up.                                                                                                                                                           |
| P501                       | Dispose of contents/ container to an approved waste disposal plant.                                                                                                        |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Reacts violently with water.  
Corrosive to the respiratory tract.  
Lachrymator.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |   |                                    |
|------------------|---|------------------------------------|
| Synonyms         | : | Methyldichlorosilane               |
| Formula          | : | CH <sub>4</sub> Cl <sub>2</sub> Si |
| Molecular weight | : | 115.03 g/mol                       |

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CAS-No. : 75-54-7  
EC-No. : 200-877-1

| Component                   | Classification                                                                               | Concentration |
|-----------------------------|----------------------------------------------------------------------------------------------|---------------|
| <b>Methyldichlorosilane</b> |                                                                                              |               |
|                             | Flam. Liq. 2; 3; Acute Tox. 3; Skin Corr. 1A; Eye Dam. 1; H225, H261, H301, H331, H314, H318 | <= 100 %      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

Water Foam

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides

Hydrogen chloride gas

silicon oxides

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

May not get in touch with: Water

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

## 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## 5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb®). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Keep workplace dry. Do not allow product to come into contact with water.

#### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Tightly closed. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

Never allow product to get in contact with water during storage.

### Storage stability

Recommended storage temperature

2 - 8 °C

Storage class (TRGS 510): 4.3: Hazardous materials, which set free flammable gases upon contact with water

## 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

##### Body Protection

Flame retardant antistatic protective clothing.

##### Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

##### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |                   |                                           |
|-------------------|-------------------------------------------|
| a) Appearance     | Form: clear, liquid<br>Color: light brown |
| b) Odor           | No data available                         |
| c) Odor Threshold | No data available                         |

|                                                 |                                                                     |
|-------------------------------------------------|---------------------------------------------------------------------|
| d) pH                                           | No data available                                                   |
| e) Melting point/freezing point                 | Melting point/range: -93 °C (-135 °F) - lit.                        |
| f) Initial boiling point and boiling range      | 41 °C 106 °F - lit.                                                 |
| g) Flash point                                  | -28 °C (-18 °F)                                                     |
| h) Evaporation rate                             | No data available                                                   |
| i) Flammability (solid, gas)                    | No data available                                                   |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: > 55 %(V)<br>Lower explosion limit: 3.4 %(V) |
| k) Vapor pressure                               | 468.019 hPa at 20 °C (68 °F)<br>1,583.27 hPa at 55 °C(131 °F)       |
| l) Vapor density                                | 3.97 - (Air = 1.0)                                                  |
| m) Relative density                             | No data available                                                   |
| n) Water solubility                             | No data available                                                   |
| o) Partition coefficient: n-octanol/water       | No data available                                                   |
| p) Autoignition temperature                     | 244 °C (471 °F) at 1,013 hPa - ASTM E-659                           |
| q) Decomposition temperature                    | No data available                                                   |
| r) Viscosity                                    | No data available                                                   |
| s) Explosive properties                         | No data available                                                   |
| t) Oxidizing properties                         | No data available                                                   |

## 9.2 Other safety information

|                        |                    |
|------------------------|--------------------|
| Relative vapor density | 3.97 - (Air = 1.0) |
|------------------------|--------------------|

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Vapors may form explosive mixture with air.  
Reacts violently with water.

### 10.2 Chemical stability

sensitive to moisture

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Do not allow water to enter container.  
Warming.  
Moisture.

## 10.5 Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents, Reacts violently with water., Alkalis, Alcohols, Amines

## 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Acute toxicity estimate Oral - 100.1 mg/kg

(Expert judgment)

Acute toxicity estimate Inhalation - 4 h - 5 mg/l

(Expert judgment)

Dermal: No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: Causes severe burns. - 4 h

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

Test Type: Ames test

Test system: *S. typhimurium*

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: Chromosome aberration test

Species: Rat

Cell type: Bone marrow

Application Route: Intraperitoneal

Result: negative

#### Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

- NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - 29 Days - NOAEL (No observed adverse effect level) - 250 mg/kg

Remarks: The value is given in analogy to the following substances: dimethylsilanediol

RTECS: VV3500000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 12: Ecological information**

**12.1 Toxicity**

|                                                     |                                                                                                         |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 126 mg/l - 96 h<br>(OECD Test Guideline 203) |
| Toxicity to daphnia and other aquatic invertebrates | static test EC50 - Daphnia magna (Water flea) - > 119 mg/l - 48 h<br>(OECD Test Guideline 202)          |
| Toxicity to algae                                   | static test ErC50 - Pseudokirchneriella subcapitata - > 118 mg/l - 72 h<br>(OECD Test Guideline 201)    |
| Toxicity to bacteria                                | static test EC50 - activated sludge - 160 mg/l - 3 h<br>(OECD Test Guideline 209)                       |

**12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d  
Result: 0 % - Not readily biodegradable.  
(OECD Test Guideline 310)

**12.3 Bioaccumulative potential**

No data available



#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Other adverse effects

No data available

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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### SECTION 14: Transport information

#### DOT (US)

UN number: 1242 Class: 4.3 (8, 3) Packing group: I  
Proper shipping name: Methyldichlorosilane  
Reportable Quantity (RQ):  
Poison Inhalation Hazard: No

#### IMDG

UN number: 1242 Class: 4.3 (3, 8) Packing group: I EMS-No: F-G, S-O  
Proper shipping name: METHYLDICHLOROSILANE

#### IATA

UN number: 1242 Class: 4.3 (3, 8) Packing group: I  
Proper shipping name: Methyldichlorosilane  
IATA Passenger: Not permitted for transport

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### SECTION 15: Regulatory information

#### SARA 302 Components

This material does not contain any components with a section 302 EHS TPQ.

#### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 311/312 Hazards

Fire Hazard, Reactivity Hazard, Acute Health Hazard

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

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## **SECTION 16: Other information**

### **Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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