

# SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0

Creation Date: Dec 17, 2021

Revision Date: Dec 17, 2021

## SECTION 1. Identification of the substance

### Product identifiers

Product name: Diethoxymethylsilane

CAS-No.: 2031-62-1

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

### Details of the supplier of the safety data sheet

Company: CHEMLYTE SOLUTIONS CO., LTD

Address: A1-3-830, XiXi Center, No. 588, Wenyi West Road, Hangzhou 310000,  
Zhejiang, China

Telephone: +86-(571)-85061365

Fax : +86-(571)-85060165

### Emergency telephone number

Emergency Phone # : +1-703-527-3887

## SECTION 2: Hazards identification

### Summary of emergency

clear, liquid colorless Highly flammable liquid and vapor. Show this material safety data sheet to the doctor in attendance. After inhalation: fresh air. In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. After eye contact: rinse out with plenty of water., Remove contact lenses. After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell. Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures. Violent reactions possible with:., Strong oxidizing agents

### 2.1 GHS Classification

Flammable liquids (Category 2), H225

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

#### Hazard Statements

H225: Highly flammable liquid and vapor.

#### Precautionary Statements

##### Prevention

P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

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.

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

##### Response

P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

##### Storage

P403 + P235: Store in a well-ventilated place. Keep cool.

##### Disposal

P501: Dispose of contents/ container to an approved waste disposal plant.

#### Reduced Labeling (<= 125 ml)

Pictogram:



Signal Word: Danger

#### Hazard Statements

H225: Highly flammable liquid and vapor.

Precautionary Statements none

#### 2.3 Physical and chemical hazards

H225: Highly flammable liquid and vapor.

#### 2.4 Health hazards

Referring to current information, no health hazard.

#### 2.5 Environmental hazards

Referring to current information, no environmental hazard.

#### 2.6 Other hazards - none

### SECTION 3: Composition/information on ingredients

Substance / Mixture : Substance

#### 3.1 Substances

Synonyms : Diethoxy-methylsilane

Formula : C<sub>5</sub>H<sub>14</sub>O<sub>2</sub>Si

Molecular weight : 134.25 g/mol

CAS-No. : 2031-62-1

EC-No. : 217-982-3

#### Hazardous ingredients

Component	Classification	Concentration
<b>Diethoxy(methyl)silane</b>		
	Flammable liquids Category 2; H225	<= 100 %

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

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

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

#### In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

### 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

### 4.4 Notes to physician

No data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

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

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides

silicon oxides

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

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

In the event of fire, wear self-contained breathing apparatus.

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.

## **SECTION 6: Accidental release measures**

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. 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 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.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **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**

Change contaminated clothing. Wash hands after working with substance.

For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a cool place away from water.

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Moisture sensitive. Handle and store under inert gas.

#### **Storage class**

Storage class (TRGS 510): 3: Flammable liquids

## **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**

Change contaminated clothing. Wash hands 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). Safety glasses

##### **Skin protection**

required

##### **Body Protection**

Flame retardant antistatic protective clothing.

##### **Respiratory protection**

required when vapours/aerosols are generated.

##### **Control of environmental exposure**

Do not let product enter drains. Risk of explosion.

## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

Physical state: clear, liquid

Color: colorless

Odor: No data available

Melting point/freezing point: Melting point/freezing point: < -100 °C at 1,013 hPa - OECD Test Guideline 102

Initial boiling point and boiling range: 94 - 95 °C - lit.

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: Upper explosion limit: 33.75 %(V)

Lower explosion limit: 0.7 %(V)

Flash point: 1 °C - closed cup - Regulation (EC) No. 440/2008, Annex, A.9

Auto ignition temperature: 243 °C

Decomposition temperature: No data available

pH: No data available

Viscosity Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Water solubility: Decomposes in contact with water.

Partition coefficient n-octanol/water: No data available

Vapor pressure: 40.1 hPa at 20 °C

Density: 0.838 g/cm<sup>3</sup> at 20 °C - lit.

Relative density: No data available

Relative vapor density: No data available

Particle characteristics: No data available

Explosive properties: No data available

Oxidizing properties: none

### **9.2 Other safety information**

No data available

## **SECTION 10: Stability and reactivity**

### 10.1 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.2 Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

### 10.3 Conditions to avoid

Humid air Water

Warming.

### 10.4 Incompatible materials

Oxidizing agents, Acids, Bases, Water

### 10.5 Hazardous decomposition products

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - female - > 2,000 mg/kg

(OECD Test Guideline 423)

Remarks: Not classified due to data which are conclusive although insufficient for classification.

LC50 Inhalation - Rat - male and female - 4 h - 26.4 mg/l - vapor

(OECD Test Guideline 403)

Remarks: Not classified due to data which are conclusive although insufficient for classification.

Dermal: No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 72 h

(OECD Test Guideline 405)

#### Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: Not sensitising

(OECD Test Guideline 406)

#### 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: 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: gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

**Carcinogenicity**

No data available

**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 - NOAEL (No observed adverse effect level) - 300 mg/kg

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: semi-static test LC50 - Danio rerio (zebra fish) - > 500 mg/l - 96 h(Regulation (EC) No. 440/2008, Annex, C.1)

Toxicity to daphnia and other aquatic invertebrates: static test EC50 - Daphnia magna (Water flea) - > 500 mg/l - 48 h(Regulation (EC) No. 440/2008, Annex, C.2)

Toxicity to algae: static test EC50 - Raphidocelis subcapitata (freshwater green alga) -> 500 mg/l - 72 h(Regulation (EC) No. 440/2008, Annex, C.3)

Toxicity to bacteria: static test EC50 - activated sludge - > 100 mg/l - 3 h(OECD Test Guideline 209)

### **12.2 Persistence and degradability**

Biodegradability

aerobic - Exposure time 28 d

Result: 0 % - Not 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 Endocrine disrupting properties

No data available

#### 12.7 Other adverse effects

No data available

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID: 1993

IMDG: 1993

IATA-DGR: 1993

#### 14.2 UN proper shipping name

ADR/RID: FLAMMABLE LIQUID, N.O.S. (Diethoxy(methyl)silane)

IMDG: FLAMMABLE LIQUID, N.O.S. (Diethoxy(methyl)silane)

IATA-DGR: Flammable liquid, n.o.s. (Diethoxy(methyl)silane)

#### 14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA-DGR: 3

#### 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA-DGR: II

#### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

#### 14.6 Special precautions for user

Based on chemical properties, choose appropriate tools and conditions of transport. Transporting tools shall be equipped with appropriate and sufficient firefighting equipment and emergency leaking installations. If transporting by road, please go along the specified route.

#### 14.7 Incompatible materials

Oxidizing agents, Acids, Bases, Water

### SECTION 15: Regulatory information

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

##### National regulatory information

##### Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Listed

##### Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export: Listed

##### Other regulations

Please pay attention on the waste treatment should also comply with local regulations requirement.

### SECTION 16: Other information



**Full text of H-Statements referred to under sections 2 and 3.**

H225 Highly flammable liquid and vapor.

**Relevant changes since previous version**

5. Fire-fighting measures

**Further information**

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