

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

### 1.1. Product identifier

Product form : Substance
Physical state : Liquid

Substance name : VINYLDIETHYLMETHYLSILANE

Product code : SIV9068.0 Formula : C7H16Si

Synonyms : ETHENYLDIETHYLMETHYLSILANE
DIETHYLMETHYLSILYLETHENE

DIE I LI LIME I LI L'OIL I LE I LI

Chemical family : ORGANOSILANE

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

Use of the substance/mixture : Chemical intermediate For research use only

## 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 : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

# **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

# **GHS-US** classification

Flam. Liq. 2 H225 Eye Irrit. 2A H319

Full text of H statements : see section 16

## 2.2. Label elements

# **GHS-US** labeling

Hazard pictograms (GHS-US)





GHS02

GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

Precautionary statements (GHS-US) : P280 - Wear protective gloves/protective clothing/eye protection/face protection

P264 - Wash hands thoroughly after handling

P210 - Keep away from heat, open flames, sparks. - No smoking

P233 - Keep container tightly closed

P240 - Ground/Bond container and receiving equipment P241 - Use explosion-proof electrical equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge

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 P337+P313 - If eye irritation persists: Get medical advice/attention

P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish

P403+P235 - Keep in a cool place

P501 - Dispose of contents/container to licensed waste disposal facility

## 2.3. Other hazards

No additional information available

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### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance

Substance type : Mono-constituent

Name : VINYLDIETHYLMETHYLSILANE

CAS No : 18292-29-0

Name	Product identifier	%	GHS-US classification
Vinyldiethylmethylsilane	(CAS No) 18292-29-0	95 - 100	Flam. Liq. 2, H225 Eye Irrit. 2A, H319

### 3.2. Mixture

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 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 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 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/injuries after inhalation : May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : No information available.

# 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 : None known.

# 5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor. Irritating fumes and organic acid vapors may develop when

material is exposed to water or open flame.

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

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.

# 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

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure

controls/personal protection". Do not attempt to take action without suitable protective

equipment.

## 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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# 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. 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 vapors are flammable. 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. Take precautionary measures against static discharge. 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

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof

electrical equipment.

Storage conditions : Keep container tightly closed. Keep in a cool place.

Incompatible materials : 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

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. 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 organic vapor (black cartridge) respirator.

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

## 9.1. Information on basic physical and chemical properties

Physical state: LiquidAppearance: Liquid.Molecular mass: 128.29 g/molColor: Straw.Odor: Distinct. Mild.Odor threshold: No data available

Refractive index : 1.423

pH : No data available Relative evaporation rate (butyl acetate=1) : No data available Melting point : No data available

Freezing point :  $< 0 \, ^{\circ}\text{C}$  Boiling point :  $120 \, ^{\circ}\text{C}$  Flash point :  $15 \, ^{\circ}\text{C}$ 

Auto-ignition temperature : No data available Decomposition temperature : No data available

Flammability (solid, gas) : Highly flammable liquid and vapor

Vapor pressure : ~ 15 mm Hg @ 20°C

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Relative vapor density at 20 °C : >1 : 0.7503 Relative density VOC content : 100 %

: Insoluble in water. Solubility 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 No data available Oxidizing properties : No data available **Explosion limits** 

#### 9.2. Other information

No additional information available

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No additional information available

#### **Chemical stability** 10.2.

Stable in sealed containers stored under a dry inert atmosphere.

### Possibility of hazardous reactions

No additional information available

#### **Conditions to avoid** 10.4.

Heat. Open flame. Sparks.

#### 10.5. Incompatible materials

Oxidizing agent.

#### 10.6. **Hazardous decomposition products**

Organic acid vapors.

# **SECTION 11: Toxicological information**

#### Information on toxicological effects 11.1.

: Not classified Acute toxicity Not classified Skin corrosion/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitization Not classified Germ cell mutagenicity : Not classified : Not classified Carcinogenicity Reproductive toxicity : Not classified Specific target organ toxicity (single exposure) : Not classified Specific target organ toxicity (repeated : Not classified exposure)

Aspiration hazard : Not classified

Symptoms/injuries after inhalation May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact May cause skin irritation. : Causes serious eye irritation. Symptoms/injuries after eye contact Symptoms/injuries after ingestion : No information available. Reason for classification : Expert judgment

# **SECTION 12: Ecological information**

# **Toxicity**

No additional information available

## Persistence and degradability

No additional information available

# **Bioaccumulative potential**

No additional information available

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## 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.

# **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

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

Waste disposal recommendations : May be incinerated. Dispose in a safe manner in accordance with local/national regulations.

Dispose of contents/container to licensed waste disposal facility.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

## **SECTION 14: Transport information**

### 14.1. UN number

UN-No.(DOT) : 1993 DOT NA no. UN1993

## 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Flammable liquids, n.o.s.

(VINYLDIETHYLMETHYLSILANE)

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : II - Medium Danger

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

## 14.3. Additional information

Emergency Response Guide (ERG) Number : 128

Other information : No supplementary information available.

# Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded

## Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

# **SECTION 15: Regulatory information**

## 15.1. US Federal regulations

## VINYLDIETHYLMETHYLSILANE (18292-29-0)

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

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## Vinyldiethylmethylsilane (18292-29-0)

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

## 15.2. International regulations

No additional information available

## 15.3. US State regulations

VINYLDIETHYLMETHYLSILANE(18292-29-0)	
U.S California - Proposition 65 - Carcinogens List	No
U.S California - Proposition 65 - Developmental Toxicity	No
U.S California - Proposition 65 - Reproductive Toxicity - Female	No
U.S California - Proposition 65 - Reproductive Toxicity - Male	No

## Vinyldiethylmethylsilane (18292-29-0)

U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	

# **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.: Chemcial 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.

## Full text of H-phrases::

H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation

## **HMIS III Rating**

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 4 Severe Hazard
Physical : 0 Minimal Hazard

Prepared by safety and environmental affairs.

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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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