

Safety Data Sheet SIM6493.7

Date of issue: 11/03/2015 Revision date: 05/04/2016 Version: 1.1

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

### **Product identifier**

Product form : Substance Physical state : Liquid

Substance name : METHOXYTRIETHYLENEOXYUNDECYLTRIMETHOXYSILANE

Product code SIM6493.7 Formula : C21H46O7Si Synonyms : PEG3C11 SILANE

Chemical family : ORGANOMETHOXYSILANE

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

: Chemical intermediate Use of the substance/mixture

For research use only

## 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

### **Emergency telephone number**

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

# **SECTION 2: Hazards identification**

### Classification of the substance or mixture

# **GHS-US** classification Eye Irrit. 2A H319

Full text of H statements : see section 16

# Label elements

# **GHS-US labeling**

Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) 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

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

#### 2.3. Other hazards

Other hazards not contributing to the

classification

: Additional methanol may be formed by reaction with moisture and water. The US OSHA PEL

(TWA) for methanol is 200 ppm.

# **Unknown acute toxicity (GHS US)**

No data available

# **SECTION 3: Composition/Information on ingredients**

# **Substance**

Substance type : Multi-constituent

: METHOXYTRIETHYLENEOXYUNDECYLTRIMETHOXYSILANE Name

CAS No : 1858242-37-1

SDS ID: SIM6493.7 05/04/2016 EN (English US) Page 1

# Safety Data Sheet

Name	Product identifier	%	GHS-US classification
Methoxytriethyleneoxyundecyltrimethoxysilane	(CAS No) 1858242-37-1	95 - 100	Eye Irrit. 2A, H319

#### **Mixture**

Not applicable

## **SECTION 4: First aid measures**

### **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.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel First-aid measures after inhalation

unwell, seek medical advice.

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

: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if First-aid measures after eye contact

present and easy to do. Continue rinsing. Get medical advice/attention.

: Never give anything by mouth to an unconscious person. Get medical advice/attention. First-aid measures after ingestion

### 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 : Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes

nausea, vomiting, headache, visual effects including blindness.

Chronic symptoms On contact with water this compound liberates methanol which is known to have a chronic effect on the central nervous system. Methanol may effect the central nervous system resulting

in persistent or recurring headaches or impaired vision.

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

NOTE TO PHYSICIAN: This product reacts with water in the acid contents of the stomach to form methanol. The combination of visual disturbances, metabolic acidosis and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 mls/hour) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated with intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance.

# **SECTION 5: Firefighting measures**

#### **Extinguishing media** 5.1.

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

Unsuitable extinguishing media : Do not use straight streams.

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

: Irritating fumes and organic acid vapors may develop when material is exposed to elevated Fire hazard

temperatures or open flame.

#### **Advice for firefighters** 5.3.

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**

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

#### 6.1.1. For non-emergency personnel

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

**Emergency procedures** : Evacuate unnecessary personnel.

#### For emergency responders 6.1.2.

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".

## **Environmental precautions**

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

## 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.

SDS ID: SIM6493.7 05/04/2016 EN (English US) 2/6

# Safety Data Sheet

Methods for cleaning up : With adequate eye protection, absorb material and transfer to a suitable container for

hydrolysis and 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 vapor and mist. Provide good ventilation in

process area to prevent accumulation of vapors.

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.

Incompatible materials : Acids. Alcohols. 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: Clear liquid.Molecular mass: 438.68 g/molColor: Straw.Odor: Mild.

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

Freezing point : < 0 °C

Boiling point : 215  $^{\circ}$ C @ 0.5 mm Hg

Flash point :  $> 110 \, ^{\circ}\text{C}$ 

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : < 0.1 mm Hg @ 25°C

Relative vapor density at 20  $^{\circ}$ C : > 1 Relative density : 0.977

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

05/04/2016 EN (English US) SDS ID: **SIM6493.7** 3/6

# Safety Data Sheet

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 methanol.

## 10.4. Conditions to avoid

Heat. Sparks. Open flame.

### 10.5. Incompatible materials

Acids. Alcohols. Oxidizing agent.

### 10.6. Hazardous decomposition products

Methanol. Organic acid vapors.

# **SECTION 11: Toxicological information**

# 11.1. Information on toxicological effects

Acute toxicity : Not classified Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

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

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and

symptoms

This material slowly generates methanol on contact with water and moisture in living tissues. Material generates methanol on contact with water or moisture in skin, eyes and mucous membranes and has an irritating, dehydrating effect on overexposed tissue.

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 : Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes

nausea, vomiting, headache, visual effects including blindness.

Chronic symptoms : On contact with water this compound liberates methanol which is known to have a chronic

effect on the central nervous system. Methanol may effect the central nervous system resulting in persistent or recurring headaches or impaired vision.

: Expert judgment

# **SECTION 12: Ecological information**

### 12.1. Toxicity

Reason for classification

No additional information available

### 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

05/04/2016 EN (English US) SDS ID: **SIM6493.7** 4/6

# Safety Data Sheet

# 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 ecological damage caused by 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.

Ecology - waste materials : Avoid release to the environment.

# **SECTION 14: Transport information**

## 14.1. UN number

Not regulated for transport.

### 14.2. UN proper shipping name

Not applicable

### 14.3. Additional information

Other information : No supplementary information available.

### Transport by sea

No additional information available

## Air transport

No additional information available

# **SECTION 15: Regulatory information**

# 15.1. US Federal regulations

# METHOXYTRIETHYLENEOXYUNDECYLTRIMETHOXYSILANE (1858242-37-1)

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

# Methoxytriethyleneoxyundecyltrimethoxysilane (1858242-37-1)

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

METHOXYTRIETHYLENEOXYUNDECYLTRIMETHOXYSILANE(1858242-37-1)		
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	

#### Methoxytriethyleneoxyundecyltrimethoxysilane (1858242-37-1) U.S. - California -U.S. - California -U.S. - California -U.S. - California -Non-significant risk level Proposition 65 -Proposition 65 -Proposition 65 -Proposition 65 -(NSRL) Developmental Toxicity Carcinogens List Reproductive Toxicity -Reproductive Toxicity -Female Male No No No No

05/04/2016 EN (English US) SDS ID: **SIM6493.7** 5/6

Safety Data Sheet

# **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::

H319 Causes serious eye irritation

### **HMIS III Rating**

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

given

Flammability : 1 Slight Hazard
Physical : 1 Slight Hazard

Prepared by safety and environmental affairs.

Date of issue: 11/03/2015 Revision date: 05/04/2016 Version: 1.1

SDS US (GHS HazCom 2012) - Custom

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

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.

© 2016 Gelest Inc. Morrisville, PA 19067

05/04/2016 EN (English US) SDS ID: **SIM6493.7** 6/6