

Safety Data Sheet SIA0055.0

Date of issue: 10/28/2015 Revision date: 11/01/2018 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product name : ACETOXYMETHYLTRIMETHOXYSILANE, 95%

Product code : SIA0055.0
Product form : Substance
Physical state : Liquid
Formula : C6H1405Si

Synonyms : (TRIMETHOXYSILYLMETHYL)ACETATE

Chemical family : ORGANOMETHOXYSILANE

1.2. Recommended use and restrictions on use

Recommended use : Chemical intermediate

1.3. Supplier

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: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids Category 3 H226 Flammable liquid and vapor Serious eye damage/eye irritation Category 2A H319 Causes serious eye irritation

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)





Signal word (GHS US) : Warning

Hazard statements (GHS US) : H226 - Flammable liquid and vapor

H319 - Causes serious eye irritation

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

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.

P264 - Wash hands thoroughly after handling.

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. Hazards not otherwise classified (HNOC)

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.

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

Substances

Substance type : Mono-constituent

: ACETOXYMETHYLTRIMETHOXYSILANE, 95%

CAS-No. : 65625-39-0

Name	Product identifier	%	GHS-US classification
Acetoxymethyltrimethoxysilane	(CAS-No.) 65625-39-0	90 - 100	Flam. Liq. 3, H226 Eye Irrit. 2A, H319

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

Mixtures

Not applicable

SECTION 4: First-aid measures

Description of first aid measures

Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek First-aid measures general 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.

: 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.

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

Most important symptoms and effects (acute and delayed)

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

Symptoms/effects after skin contact : May cause skin irritation. Symptoms/effects after eve contact : Causes serious eve irritation.

Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes Symptoms/effects after ingestion

nausea, vomiting, headache, visual effects including blindness

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

in persistent or recurring headaches or impaired vision.

Immediate medical attention and special treatment, if necessary 43

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: Fire-fighting measures

Suitable (and unsuitable) extinguishing media

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

Unsuitable extinguishing media : Do not use straight streams.

Specific hazards arising from the chemical

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

material is exposed to elevated temperatures or open flame.

Special protective equipment and precautions for fire-fighters

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

General measures : Eliminate 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.

For emergency responders

: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with Protective equipment

proper protection. For further information refer to section 8: "Exposure controls/personal

protection"

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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. 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 : 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 : Use explosion-proof electrical equipment.

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

Incompatible materials : Oxidizing agent. Peroxides.

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. Appropriate engineering controls

Appropriate engineering controls : Provide local exhaust or general room ventilation.

8.3. Individual protection measures/Personal protective equipment

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 : Liquid

Appearance : Clear liquid.

Molecular mass : 194.26 g/mol

Color : No data available

Odor : Mild

Odor threshold : No data available

Refractive index : 1.4031

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

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Melting point : No data available

Freezing point : $< 0 \, ^{\circ}\mathrm{C}$ Boiling point : $190 - 191 \, ^{\circ}\mathrm{C}$ Flash point : $56 \, ^{\circ}\mathrm{C}$

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

Flammability (solid, gas) : Flammable liquid and vapor

Vapor pressure : No data available

Relative vapor density at 20 °C : > 1Relative density : 1.085 % Volatiles : < 3 %

Solubility 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 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

10.2. Chemical stability

Stable in sealed containers.

10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating methanol.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Oxidizing agent. Peroxides.

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

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

: Not classified

Aspiration hazard
Potential Adverse human health effects and

symptoms

: This material liberates small amounts of methanol on contact with moisture. 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/effects after inhalation : May cause irritation to the respiratory tract.

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Symptoms/effects after skin contact : May cause skin irritation. Symptoms/effects after eye contact : Causes serious eye irritation.

: Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes Symptoms/effects after ingestion

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.

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

Mobility in soil

No additional information available

12.5 Other adverse effects

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

: No additional information available Effect on the ozone layer

SECTION 13: Disposal considerations

Disposal methods 13.1.

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

Product/Packaging 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.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

UN number 14.1.

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

14.2. **UN** proper shipping name

Transport document description : UN1993 Flammable liquids, n.o.s. (ACETOXYMETHYLTRIMETHOXYSILANE), 3, III

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

(ACETOXYMETHYLTRIMETHOXYSILANE)

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

Packing group (DOT) : III - Minor Danger Hazard labels (DOT) : 3 - Flammable liquid



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203 DOT Packaging Bulk (49 CFR 173.xxx) : 242 DOT Packaging Exceptions (49 CFR 173.xxx) : 150

: G - Identifies PSN requiring a technical name **DOT Symbols**

14.3. Additional information

Emergency Response Guide (ERG) Number : 128

Other information : No supplementary information available.

Transport by sea

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

passenger vessel.

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Air transport

DOT Quantity Limitations Passenger aircraft/rail : 60 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L

CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

ACETOXYMETHYLTRIMETHOXYSILANE, 95% (65625-39-0)

TSCA Exemption/Exclusion

Low Volume Exemption in accordance with 40 CFR 723.50(c)(1). Use of this substance is restricted to use in surface treatment. Anyone who intends to use this chemical substance for commercial purposes must comply with specific use restrictions and controls specified herein. This LVE limits site of manufacture of this substance to Gelest, Inc. unless otherwise approved by U.S. EPA

Acetoxymethyltrimethoxysilane (65625-39-0)

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

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Full text of H-phrases::

H226	Flammable liquid and vapor
H319	Causes serious eye irritation

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; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

Hazard Rating

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

given

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature

conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

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.

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SDS US (GHS HazCom 2012) - Custom

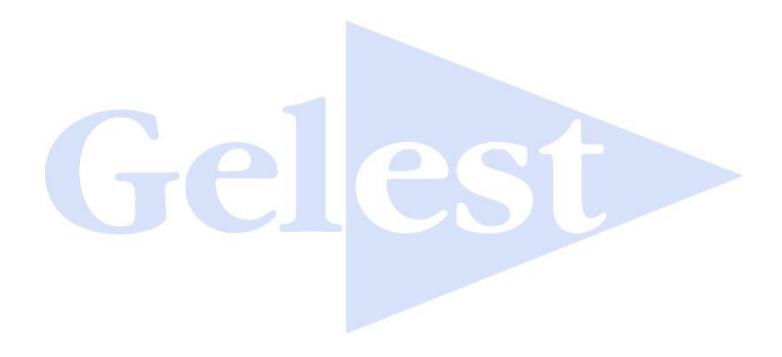
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According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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11 E. Steel Road Morrisville, PA 19067

215-547-1015 phone 215-547-2484 fax www.gelest.com

NOTICE OF TSCA USE RESTRICTIONS AND REQUIRED CONTROLS FOR SIA0055.0 ACETOXYMETHYLTRIMETHOXYSILANE, 95%

Dear Customer:

The chemical product purchased, SIA0055.0 has been granted a Low Volume Exemption by the U.S. Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA) regulations (40 CFR 723.50). Any manufacturer or processor who intends to use this chemical substance for commercial purposes must comply with the specific use restrictions and controls specified as follows:

USE OF THIS CHEMICAL SUBSTANCE IS RESTRICTED TO: Surface treatment

CONTROLS: Workers must use personal protection equipment to limit dermal and inhalation exposures as described in Section 8: Exposure Controls/Personal Protection of the Safety Data Sheet (SDS). These exposure controls include:

Hand protection: Impervious gloves (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: Air-purifying respirator with organic vapor cartridge.

WASTE DISPOSAL: Collect and containerize all waste, residues and wash solvents for off-site disposal by incineration. Do not release to POTW via sewer or to surface waters.

If you have questions or need more information related to allowable use of this substance, contact Gelest Regulatory Affairs at 215-547-1015.

Best Regards,

Gelest, Inc.

Regulatory Affairs Department