

Safety Data Sheet SIO6619.2

Issue date: 04/09/2018 Revision date: 05/23/2023 Version: 2.9

SECTION 1: Identification

1.1. Identification

Product name : OCTADECYLDIMETHYL(3-TRIETHOXY SILYLPROPYL)AMMONIUM CHLORIDE, 72% in

ethanol

Product code : SIO6619.2
Product form : Mixture
Physical state : Liquid

Formula : C29H64CINO3Si

Synonyms : DIMETHYLOCTADECYL[3-(TRIETHOXYSILYL)PROPYL]AMMONIUM CHLORIDE

1-OCTADECANAMINIUM, N,N-DIMETHYL-N-[3-(TRIETHOXYSILYL)PROPYL]-, CHLORIDE

Chemical family : ORGANOETHOXYSILANE

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
Skin corrosion/irritation Category 2 H315 Causes skin irritation
Serious eye damage/eye irritation Category 2A H319 Causes serious eye irritation
Specific target organ toxicity – Single exposure, H335 May cause respiratory irritation

Category 3, Respiratory tract 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

H315 - Causes skin irritation

H319 - Causes serious eye irritation H335 - May cause respiratory irritation

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Precautionary statements (GHS US)

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

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.

P261 - Avoid breathing vapors.

P264 - Wash hands thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing

P312 - Call a doctor if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

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

P362+P364 - Take off contaminated clothing and wash it before reuse.

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

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P403+P235 - Keep in a cool place

P405 - Store locked up.

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

2.3. Hazards not otherwise classified (HNOC)

Other hazards which do not result in classification

Overexposure to ethanol by skin absorption, inhalation or ingestion may have a narcotic effect (headache, nausea, drowsiness). Ethanol is metabolized to acetaldehyde and acetic acid which in large quantities result in metabolic acidosis, CNS depression and death due to respiratory arrest. This product contains ethanol which is classified as a carcinogen by IARC in alcoholic beverages.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Octadecyldimethyl(3-triethoxysilylpropyl)ammonium chloride	CAS-No.: 62117-57-1	66 – 75	Eye Irrit. 2A, H319
Ethanol	CAS-No.: 64-17-5	< 35	Flam. Liq. 2, H225 Eye Irrit. 2A, H319
3-Chloropropyltriethoxysilane	CAS-No.: 5089-70-3	< 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

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

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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.

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

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause respiratory irritation. Overexposure may cause: Coughing. Headache. Nausea.

Symptoms/effects after skin contact Causes (severe) skin burns. Symptoms/effects after eye contact Causes serious eye damage. Symptoms/effects after ingestion : May be harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

Unsuitable extinguishing media None known.

5.2. 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.

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

5.3. 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

6.1. Personal precautions, protective equipment and emergency procedures

: Eliminate every possible source of ignition. Use special care to avoid static electric charges. General measures

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 : 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".

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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. 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/ventilating/lighting equipment.

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

Incompatible materials : Acids. Alcohols. 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

Ethanol (64-17-5)			
USA - ACGIH - Occupational Exposure Limits			
ACGIH OEL STEL [ppm]	1000 ppm		
ACGIH chemical category Confirmed Animal Carcinogen with Unknown Relevance to Humans			
USA - OSHA - Occupational Exposure Limits			
OSHA PEL (TWA) [1]	1900 mg/m³		
OSHA PEL (TWA) [2]	1000 ppm		
USA - IDLH - Occupational Exposure Limits			
IDLH [ppm]	3300 ppm (10% LEL)		
USA - NIOSH - Occupational Exposure Limits			
NIOSH REL (TWA)	1900 mg/m³		
NIOSH REL TWA [ppm]	1000 ppm		

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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:

Wear impervious gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

NIOSH-certified air-purifying full facepiece respirator with an assigned protection factor (APF) of 50 in accordance with OSHA 29 CFR 1910.134.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear to hazy liquid.

Molecular mass : 538.37 g/mol

Color : Straw.

Odor : Mild. Ethanol.

Odor threshold : 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 : 76 °C (initial, ethanol)

Flash point : 42 °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 : > 1

Relative density : 0.86 – 0.89 Reacts with water. Solubility Partition coefficient n-octanol/water (Log Pow) : No data available No data available Partition coefficient n-octanol/water (Log Kow) No data available Viscosity, kinematic Viscosity, dynamic No data available No data available Explosive properties 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

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10.2. Chemical stability

Stable when stored in sealed containers.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Heat. Sparks. Open flame.

10.5. Incompatible materials

Acids. Alcohols. Oxidizing agent. Peroxides.

10.6. Hazardous decomposition products

Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Ethanol (64-17-5)	
LD50 oral rat	7060 mg/kg
LC50 Inhalation - Rat	124.7 mg/l/4h
LC50 Inhalation - Rat [ppm]	20000 ppm 10 hrs.
LDLo oral rat	1400 mg/kg (Human)

3-Chloropropyltriethoxysilane (5089-70-3)	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: EPA OPP 81-1 (Acute Oral Toxicity), Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation : Causes skin irritation.
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

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : Not classified Aspiration hazard : Not classified

Symptoms/effects after inhalation : May cause respiratory irritation. Overexposure may cause: Coughing. Headache. Nausea.

Symptoms/effects after skin contact : Causes (severe) skin burns.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : May be harmful if swallowed.

Reason for classification : Expert judgment

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SECTION 12: Ecological information

12.1. Toxicity

Ethanol (64-17-5)	
LC50 - Fish [1]	> 10000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 - Fish [2]	> 13400 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
3-Chloropropyltriethoxysilane (5089-70-3)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	21.2 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	869 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 833 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	> 883 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Ethanol (64-17-5)		
Partition coefficient n-octanol/water (Log Pow)	-0.32	

12.4. Mobility in soil

3-Chloropropyltriethoxysilane (5089-70-3)	
Mobility in soil	1.77 Source: Quantitative Structure Activity Relation

12.5. Other adverse effects

Other adverse effects : May be hazardous to aquatic life if released to open waters.

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

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...

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

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

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((OCTADECYLDIMETHYL(3- TRIETHOXY SILYLPROPYL)AMMONIUM CHLORIDE, 72% in ethanoll)) Transport document description UN1993 Flammable liquids, n.o.s. (OCTADECYLDIMETHYL(3- TRIETHOXY SILYLPROPYL)AMMONIUM CHLORIDE, 72% in ethanol) UN 1993 Flammable liquids, n.o.s. (OCTADECYLDIMETHYL(3- TRIETHOXY SILYLPROPYL)AMMONIUM CHLORIDE, 72% in ethanol) UN 1993 Flammable liquids, n.o.s. (OCTADECYLDIMETHYL(3- TRIETHOXY SILYLPROPYL)AMMONIUM CHLORIDE, 72% in ethanol), 3, III 14.3. Transport hazard class(es) 3 Not applicable 3 3 Not applicable 14.4. Packing group III Not applicable III III III III III III III	DOT	TDG		IMDG	IATA
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	14.5. Environmental hazards				
	Dangerous for the environment: No	Dangerous for the environment	nt: No	•	Dangerous for the environment: No
No supplementary information available	No supplementary information availab	le			I .

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1993

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DOT Special Provisions (49 CFR 172.102)

: B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.

B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Quantity Limitations Passenger aircraft/rail (49 : 60 L

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49

CFR 175.75)

DOT Vessel Stowage Location

: 220 L

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

TDG

Emergency Response Guide (ERG) Number : 128

IMDG

Special provision (IMDG) : 223, 274, 955

Limited quantities (IMDG) : 5 L

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : P001, LP01

IBC packing instructions (IMDG) : IBC03

Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1, TP29

EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS EmS-No. (Spillage) : S-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER

Stowage category (IMDG) : A

IATA

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) Y344 PCA limited quantity max net quantity (IATA) 10L 355 PCA packing instructions (IATA) 60L PCA max net quantity (IATA) CAO packing instructions (IATA) 366 CAO max net quantity (IATA) 220L Special provision (IATA) **A3** ERG code (IATA) 3L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

OCTADECYLDIMETHYL(3-TRIETHOXY SILYLPROPYL)AMMONIUM CHLORIDE, 72% in ethanol

EPA TSCA Regulatory Flag

EPA, in its review of this substance, has identified concerns for skin irritation and pulmonary effects. These concerns were not classifiable based on GHS criteria.

PMN - PMN - indicates a commenced PMN substance.

S - S - indicates a substance that is identified in a final Significant New Use Rule.

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Ethanol	64-17-5	Present	Active	
Octadecyldimethyl(3-triethoxysilylpropyl)ammonium chloride	62117-57-1	Present	Active	PMN;S
3-Chloropropyltriethoxysilane	5089-70-3	Present	Active	

15.2. International regulations

CANADA

Ethanol (64-17-5)

Listed on the Canadian DSL (Domestic Substances List)

Octadecyldimethyl(3-triethoxysilylpropyl)ammonium chloride (62117-57-1)

Listed on the Canadian NDSL (Non-Domestic Substances List)

3-Chloropropyltriethoxysilane (5089-70-3)

Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

Ethanol (64-17-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Octadecyldimethyl(3-triethoxysilylpropyl)ammonium chloride (62117-57-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

3-Chloropropyltriethoxysilane (5089-70-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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National regulations

Ethanol (64-17-5)

Listed on IARC (International Agency for Research on Cancer)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

Octadecyldimethyl(3-triethoxysilylpropyl)ammonium chloride (62117-57-1)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemical Inventory)

3-Chloropropyltriethoxysilane (5089-70-3)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

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

Ethanol (64-17-5)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases::

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H227	Combustible liquid
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

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Safety Data Sheet

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

Flammability

: 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

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

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.

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NOTICE OF SIGNIFICANT NEW USE RULE SIO6619.2 OCTADECYLDIMETHYL(3-TRIETHOXYSILYLPROPYL)AMMONIUM CHLORIDE, 72% in ethanol

Dear Customer:

The chemical product purchased, SIO6619.2 is subject to a U.S. Environmental Protection Agency (EPA) Significant New Use Rule (SNUR) under the Toxic Substances Control Act (TSCA) regulations. Any manufacturer or processor who intends to use a chemical substance for commercial purposes with an identified new use must file a Significant New Use Notification (SNUN) with EPA.

Please reference the US Code of Federal Regulations at 40 CFR Part 721.11586, 1-octadecanaminium, N,N-dimethyl-N-[3-(triethoxysilyl)propyl]-, chloride (1:1), to review the specific designated new use(s) for (OCTADECYLDIMETHYL(3-

TRIETHOXYSILYLPROPYL)AMMONIUM CHLORIDE, 72% in ethanol [CAS #62117-57-1] which would require EPA approval prior to that new use. It is a significant new use to use the substance other than as a surface treatment for added lubricity and anti-static properties. It is a significant new use to use the substance in an application method that results in inhalation exposure to workers.

If this product will be used for research and development purposes, please reference 40 CFR 721.47 to understand the specific conditions for the research and development exemption.

If you have questions or need more information related to a significant new use of a chemical substance, call the Toxic Substances Control Act (TSCA) Hotline at 202-554-1404 or email: tsca-hotline@epa.gov.

Best Regards,

Gelest, Inc. Regulatory Affairs Department