

Safety Data Sheet SIO6620.2

Issue date: 02/24/2016 Revision date: 12/22/2023 Version: 2.4

SECTION 1: Identification

1.1. Identification

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

methanol

Product code : SIO6620.2
Product form : Mixture
Physical state : Liquid

Formula : C26H58CINO3Si

Synonyms : (TRIMETHOXYSILYLPROPYL)OCTADECYLDIMETHYLAMMONIUM CHLORIDE

DIMETHYLOCTADECYL[3-(TRIMETHOXYSILYL)PROPYL]AMMONIUM CHLORIDE

FDA Unique Ingredient Identifier (UNII) ID# IQ36O85WQ4

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 2 H225 Highly flammable liquid and vapor

Acute toxicity (oral) Category 4 H302 Harmful if swallowed

Acute toxicity (dermal) Category 4 H312 Harmful in contact with skin

Acute toxicity (inhalation:vapor) Category 4 H332 Harmful if inhaled

Skin corrosion/irritation Category 1 H314 Causes severe skin burns and eye damage

Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage Specific target organ toxicity (single exposure) H370 Causes damage to organs

Category 1

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) : Danger

Print date: 12/22/2023 EN (English US) SDS ID: **SIO6620.2** 1/14

Safety Data Sheet

Precautionary statements (GHS US)

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

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H370 - Causes damage to organs

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 equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe vapors. P261 - Avoid breathing vapors.

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

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

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

P301+P312 - If swallowed: Call a POISON CENTER if you feel unwell. P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.

P302+P352 - If on skin: Wash with plenty of soap and water.

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

P307+P311 - If exposed: Call a poison center/doctor.

P310 - Immediately call a POISON CENTER.

P312 - Call a POISON CENTER if you feel unwell.

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

P322 - Specific treatment (see supplemental first aid instruction on this label)

P330 - Rinse mouth.

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

P363 - Wash contaminated clothing before reuse.

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

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)

No additional information available

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-trimethoxysilylpropyl)ammonium chloride	CAS-No.: 27668-52-6	67 – 87	Eye Irrit. 2A, H319

Print date: 12/22/2023 EN (English US) SDS ID: **SIO6620.2** 2/14

Safety Data Sheet

Name	Product identifier	%	GHS US classification
Methanol	CAS-No.: 67-56-1	15 – 20	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 1, H370 STOT SE 3, H336
3-Chloropropyltrimethoxysilane	CAS-No.: 2530-87-2	7 – 13	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after ingestion

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 : Remove/take off immediately all contaminated clothing. Wash with plenty of soap and water. If

skin irritation occurs: 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 immediate medical advice/attention.

: Never give anything by mouth to an unconscious person. Immediately call a poison center or doctor/physician.

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

Symptoms/effects : Causes damage to organs.

Symptoms/effects after inhalation : Harmful if inhaled. Danger of serious damage to health by prolonged exposure through inhalation. Overexposure may cause: Cough. Headache. Nausea. Visual disturbances.

Symptoms/effects after skin contact : Causes skin irritation. Harmful in contact with skin. Repeated exposure to this material can result

ymptoms/effects after skin contact : Causes skin irritation. Harmful in contact with skin. Repeated exposure to this material can result in absorption through skin causing significant health hazard.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard. Oral toxicity is associated with methanol, the solvent and a hydrolysis product which

causes nausea, vomiting, headache, visual effects including blindness. Onset of symptoms may be delayed up to 48 hours.

Chronic symptoms : Methanol may effect the

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

4.3. Immediate medical attention and special treatment, if necessary

NOTE TO PHYSICIAN: 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

5.1. Suitable (and unsuitable) extinguishing media

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

Print date: 12/22/2023 EN (English US) SDS ID: **S106620.2** 3/14

Safety Data Sheet

Unsuitable extinguishing media : Do not use straight streams.

5.2. Specific hazards arising from the chemical

Fire hazard : Highly 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

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 : 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".

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 : Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Handle empty containers

with care because residual vapors are flammable.

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and

receiving equipment. Take precautionary measures against static discharge. Use only outdoors

or in a well-ventilated area. 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. Store locked up.

Incompatible materials : Acids. Alcohols. Oxidizing agent. Peroxides.

Print date: 12/22/2023 EN (English US) SDS ID: **\$106620.2** 4/14

Safety Data Sheet

Storage area : Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methanol (67-56-1)			
USA - ACGIH - Occupational Exposure Limits			
Local name	Methanol		
ACGIH OEL TWA	200 ppm		
ACGIH OEL STEL	250 ppm		
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI		
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route		
Regulatory reference	ACGIH 2023		
USA - ACGIH - Biological Exposure Indices			
Local name	METHANOL		
BEI (BLV)	15 mg/l (Medium: urine - Time: end of shift - Parameter: Methanol (background, nonspecific)		
Regulatory reference	ACGIH 2023		
USA - OSHA - Occupational Exposure Limits			
Local name	Methyl alcohol		
OSHA PEL TWA	260 mg/m³		
	200 ppm		
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1		
USA - IDLH - Occupational Exposure Limits			
IDLH	6000 ppm		
USA - NIOSH - Occupational Exposure Limits			
NIOSH REL (TWA)	260 mg/m³		
	200 ppm		
NIOSH REL (STEL)	325 mg/m³		
	250 ppm		
US-NIOSH chemical category	Potential for dermal absorption		

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

Print date: 12/22/2023 EN (English US) SDS ID: **SIO6620.2** 5/14

Safety Data Sheet

Eye protection:

Chemical goggles or face shield. 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 combination organic vapor - amine gas (brown 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 496.29 g/mol Color Straw. Odor Amine-like. No data available Odor threshold No data available pН Relative evaporation rate (butyl acetate=1) No data available Melting point No data available Freezing point No data available : 68 °C (initial, methanol) Boiling point

Flash point : 15 °C
Auto-ignition temperature : 230 °C

Decomposition temperature : No data available

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

Vapor pressure : 50 mm Hg @ 25°C Relative vapor density at 20°C : No data available

Relative density : 0.95

Solubility : Reacts with water. Dissolves.

Partition coefficient n-octanol/water (Log Pow) : No data available
Partition coefficient n-octanol/water (Log Kow) : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available

Explosion limits : 6-36.5 vol % (lower; upper)

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 when stored in sealed containers.

10.3. Possibility of hazardous reactions

No additional information available

Print date: 12/22/2023 EN (English US) SDS ID: **SIO6620.2** 6/14

Safety Data Sheet

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.

LD50 dermal rat

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Harmful in contact with skin.

Acute toxicity (inhalation) : Inhalation:vapor: Harmful if inhaled.

	·			
OCTADECYLDIMETHYL(3-TRIMETHOXYSILYLPROPYL)AMMONIUM CHLORIDE, 72% in methanol (27668-52-6)				
ATE US (oral)	500 mg/kg body weight			
ATE US (dermal)	1407.627 mg/kg body weight			
ATE US (vapors)	15 mg/l/4h			
Methanol (67-56-1)				
LD50 oral rat	100 mg/kg Source: National Institute of Environmental Research NCIS			
LD50 dermal rabbit	300 mg/kg Source: ECHA			
LC50 Inhalation - Rat [ppm]	22500 ppm (Exposure time: 8 h)			
Octadecyldimethyl(3-trimethoxysilylpropyl)ammonium chloride (27668-52-6)				
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)			
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)			
3-Chloropropyltrimethoxysilane (2530-87-2)				
LD50 oral rat	> 2000 mg/kg Source: SIDS			

LD50 dermal rabbit 2830 μl/kg

 Skin corrosion/irritation
 : Causes severe skin burns.

 Serious eye damage/irritation
 : Causes serious eye damage.

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.

> 2000 mg/kg Source: SIDS

Reproductive toxicity : Not classified

STOT-single exposure : Causes damage to organs.

STOT-repeated exposure : Not classified

Octadecyldimethyl(3-trimethoxysilylpropyl)ammonium chloride (27668-52-6)		
NOAEL (oral,rat,90 days) 300 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:		

Print date: 12/22/2023 EN (English US) SDS ID: **S106620.2** 7/14

Safety Data Sheet

Octadecyldimethyl(3-trimethoxysilylpropyl)ammonium chloride (27668-52-6)			
NOAEL (dermal,rat/rabbit,90 days)	792 mg/kg body weight Animal: rabbit, Guideline: other:		
Aspiration hazard	: Not classified		
Symptoms/effects after inhalation	 Harmful if inhaled. Danger of serious damage to health by prolonged exposure through inhalation. Overexposure may cause: Cough. Headache. Nausea. Visual disturbances. 		
Symptoms/effects after skin contact	: Causes skin irritation. Harmful in contact with skin. Repeated exposure to this material can result in absorption through skin causing significant health hazard.		
Symptoms/effects after eye contact	: Causes serious eye damage.		
Symptoms/effects after ingestion	: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard. Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness. Onset of symptoms may be delayed up to 48 hours.		
Chronic symptoms	 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

12.1. Toxicity

Methanol (67-56-1)		
LC50 - Fish [1]	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
LC50 - Fish [2]	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
EC50 96h - Algae [1]	22000 mg/l Source: ECHA	
NOEC (chronic)	208 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC chronic fish	446.7 mg/l Test organisms (species): Pimephales promelas Duration: '28 d'	
Octadecyldimethyl(3-trimethoxysilylpropyl)an	nmonium chloride (27668-52-6)	
LC50 - Fish [1]	< 10 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)	
EC50 96h - Algae [1]	< 1 mg/l Source: ECOSAR	
3-Chloropropyltrimethoxysilane (2530-87-2)		
LC50 - Fish [1]	> 100 mg/l Source: SIDS	
EC50 - Crustacea [1]	869 mg/l Source: SIDS	
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)	
ErC50 algae	> 883 mg/l Source: SIDS	
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC (chronic)	≥ 66 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	

12.2. Persistence and degradability

No additional information available

Print date: 12/22/2023 EN (English US) SDS ID: **SIO6620.2** 8/14

Safety Data Sheet

12.3. Bioaccumulative potential

Methanol (67-56-1)		
BCF - Fish [1]	< 10	
Partition coefficient n-octanol/water (Log Pow)	-0.77	
3-Chloropropyltrimethoxysilane (2530-87-2)		
Partition coefficient n-octanol/water (Log Pow)	0.56	

12.4. Mobility in soil

Methanol (67-56-1)	
Mobility in soil	2.75 Source: HSDB

12.5. Other adverse effects

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

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 : Incinerate. 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.

Ecological information : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

in accordance with BOT / TBO / INIBO / IATA						
DOT	TDG		IMDG	IATA		
14.1. UN number						
1230	Not applicable		1230	1230		
14.2. Proper Shipping Name						
Methanol	Not applicable		METHANOL	Methanol		
Transport document description						
UN1230 Methanol, 3, II	Not applicable		UN 1230 METHANOL, 3 (6.1), II (12°C c.c.)	UN 1230 Methanol, 3 (6.1), II		
14.3. Transport hazard class(es	14.3. Transport hazard class(es)					
3	Not applicable		3 (6.1)	3 (6.1)		
FLAMMABLE LIQUID	Not applicable		3 6	3 6		
14.4. Packing group						
II	Not applicable		II	II		

Print date: 12/22/2023 EN (English US) SDS ID: **SIO6620.2** 9/14

Safety Data Sheet

DOT	TDG	IMDG	IATA
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

UN-No.(DOT) : UN1230

DOT Special Provisions (49 CFR 172.102) IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite

> (31HZ1). 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.

T7 - 4 178.274(d)(2) Normal...... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image)

Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59

F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx)

DOT Packaging Non Bulk (49 CFR 173.xxx) 202; when shipping UN1230 by ground domestically, class 6.1 as the subsidiary risk is not

needed per 49CFR

DOT Packaging Bulk (49 CFR 173.xxx) DOT Quantity Limitations Passenger aircraft/rail (49 : 1 L

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49

CFR 175.75)

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.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Emergency Response Guide (ERG) Number : 131

IMDG

Special provision (IMDG) : 279 Limited quantities (IMDG) 1 L Excepted quantities (IMDG) E2 · P001 Packing instructions (IMDG) : IBC02 IBC packing instructions (IMDG) Tank instructions (IMDG) : T7 Tank special provisions (IMDG)

EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS

EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS

Stowage category (IMDG) : B Stowage and handling (IMDG) · SW2 Flash point (IMDG) : 12°C c.c.

Print date: 12/22/2023 EN (English US) SDS ID: SIO6620.2 10/14

Safety Data Sheet

IATA

: E2 PCA Excepted quantities (IATA) PCA Limited quantities (IATA) : Y341 PCA limited quantity max net quantity (IATA) : 1L PCA packing instructions (IATA) : 352 PCA max net quantity (IATA) : 1L CAO packing instructions (IATA) : 364 CAO max net quantity (IATA) : 60L Special provision (IATA) : A104, A113

ERG code (IATA) : 3L

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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
Methanol	67-56-1	Present	Active	
Octadecyldimethyl(3-trimethoxysilylpropyl)ammonium chloride	27668-52-6	Present	Active	
3-Chloropropyltrimethoxysilane	2530-87-2	Present	Active	

Methanol (67-56-1)

Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 5000 lb

15.2. International regulations

CANADA

Methanol (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

Octadecyldimethyl(3-trimethoxysilylpropyl)ammonium chloride (27668-52-6)

Listed on the Canadian DSL (Domestic Substances List)

3-Chloropropyltrimethoxysilane (2530-87-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Methanol (67-56-1)

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

Print date: 12/22/2023 EN (English US) SDS ID: **SIO6620.2** 11/14

Safety Data Sheet

Octadecyldimethyl(3-trimethoxysilylpropyl)ammonium chloride (27668-52-6)

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

3-Chloropropyltrimethoxysilane (2530-87-2)

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

National regulations

Methanol (67-56-1)

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)

Japanese Poisonous and Deleterious Substances Control Law

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on Thailand Existing Chemicals Inventory (DIW)

Listed on the NCI (Vietnam - National Chemical Inventory)

Octadecyldimethyl(3-trimethoxysilylpropyl)ammonium chloride (27668-52-6)

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 CICR (Turkish Inventory and Control of Chemicals)

3-Chloropropyltrimethoxysilane (2530-87-2)

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 the TCSI (Taiwan Chemical Substance Inventory)

Listed on Thailand Existing Chemicals Inventory (DIW)

Listed on the NCI (Vietnam - National Chemical Inventory)

15.3. US State regulations



This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Methanol (67-56-1)					
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	No significant risk level (NSRL)	Maximum allowable dose level (MADL)

Print date: 12/22/2023 EN (English US) SDS ID: **\$106620.2** 12/14

Safety Data Sheet

Methanol (67-56-1)						
No	Yes	No	No		47000 μg/day (inhalation); 23,000 μg/day (oral)	

Methanol (67-56-1)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases::

10/11 01 11 pinacoon			
H225	Highly flammable liquid and vapor		
H226	Flammable liquid and vapor		
H301	Toxic if swallowed		
H302	Harmful if swallowed		
H311	Toxic in contact with skin		
H312	Harmful in contact with skin		
H314	Causes severe skin burns and eye damage		
H315	Causes skin irritation		
H318	Causes serious eye damage		
H319	Causes serious eye irritation		
H331	Toxic if inhaled		
H332	Harmful if inhaled		
H336	May cause drowsiness or dizziness		
H370	Causes damage to organs		

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

: 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.

Issue date: 02/24/2016 Revision date: 12/22/2023 Version: 2.4

SDS US (GHS HazCom 2012) - Custom

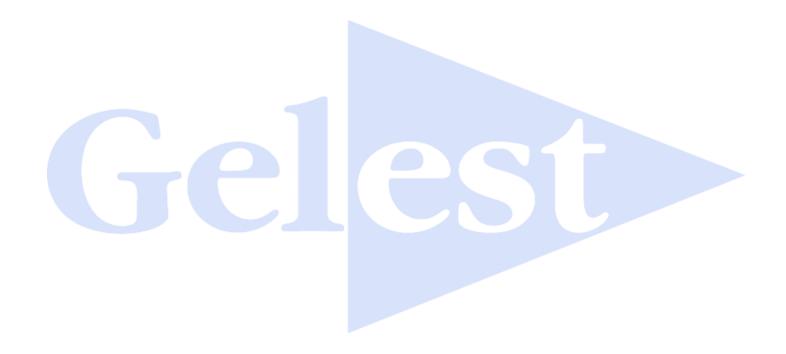
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Print date: 12/22/2023 EN (English US) SDS ID: **S106620.2** 13/14

Safety Data Sheet

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.

© 2023 Gelest Inc. Morrisville, PA 19067



Print date: 12/22/2023 EN (English US) SDS ID: **\$106620.2** 14/14