

Safety Data Sheet SIC2417.0

Date of issue: 01/23/2015 Revision date: 03/11/2015 Version: 1.1

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

1.1. Product identifier

Product form : Mixture
Physical state : Liquid

Product name : 2-(4-CHLOROSULFONYLPHENYL)ETHYLTRIMETHOXYSILANE, 50% in methylene chloride

Product code : SIC2417.0
Formula : C11H17ClO5SSi

Synonyms : TRIMETHOXYSILYLETHYLPHENYLSULFONYL CHLORIDE

Chemical family : ORGANOMETHOXYSILANE

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

Use of the substance/mixture : Chemical intermediate

For research use only

1.3. Details of the supplier of the safety data sheet

GELEST, INC.

11 East Steel Road Morrisville, PA 19067

USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

info@gelest.com - www.gelest.com

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Corr. 1B H314 Eye Dam. 1 H318 Carc. 1B H350

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)





GHS05

GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H350 - May cause cancer

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood P280 - Wear protective gloves/protective clothing/eye protection/face protection

P260 - Do not breathe mist, vapors

P264 - Wash hands thoroughly after handling

P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting

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

P308+P313 - If exposed or concerned: Get medical advice/attention

P363 - Wash contaminated clothing before reuse

P405 - Store locked up

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

2.3. Other hazards

No additional information available

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2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
2-(4-Chlorosulfonylphenyl)ethyltrimethoxysilane	(CAS No) 126519-89-9	> 45	Skin Corr. 1B, H314 Eye Dam. 1, H318
Methylene chloride	(CAS No) 75-09-2	> 45	Acute Tox. 4 (Oral), H302 Carc. 1B, H350

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. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact

: Wash with plenty of soap and water. Get immediate 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.

First-aid measures after ingestion

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

I.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries

: Causes severe skin burns and eye damage. May cause cancer.

Symptoms/injuries after inhalation

May cause irritation to the respiratory tract. Overexposure may cause: Coughing. Headache.

Symptoms/injuries after skin contact

Causes (severe) skin burns.

Symptoms/injuries after eye contact

: Causes serious eye damage.

Symptoms/injuries after ingestion

: May be harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard

: Irritating fumes of hydrogen chloride and organic acid vapors may develop when material is exposed to water or open flame.

5.3. Advice for firefighters

Firefighting instructions

: Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.

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

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing vapors.

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

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.

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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 : Provide local exhaust or general room ventilation. Do not handle until all safety precautions

have been read and understood. Avoid all eye and skin contact and do not breathe vapor and

mist.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.

Incompatible materials : Alcohols. Amines. Oxidizing agent. Moisture. Water. 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

Methylene chloride (75-09-2)				
USA ACGIH	ACGIH TWA (ppm)		50 ppm	
USA OSHA	OSHA PEL (TWA) (ppm)		25 ppm	
USA OSHA	OSHA PEL (STEL) (ppm)		125 ppm (see 29 CFR 1910.1052)	
USA IDLH	US IDLH (ppm)		2300 ppm	

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 or face shield. Contact lenses should not be worn.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: LiquidAppearance: Liquid.Molecular mass: 324.85 g/molColor: Straw. Amber.

Odor : Acrid.

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 : 39 °C initial (methylene chloride)

Flash point : No data available

Auto-ignition temperature : 615 °C (methylene chloride)

Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : ~ 380 mm Hg @ 22°C

Relative vapor density at 20 °C : > 1Relative density : 1.3 VOC content : > 50 %

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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
Explosive properties : No data available
Oxidizing properties : No data available

Explosive limits : 15.5 - 66.4 vol % (methylene chloride) in O2; (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 in sealed containers stored under a dry inert atmosphere.

10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating hydrogen chloride.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Alcohols. Amines. Oxidizing agent. Moisture. Water.

10.6. Hazardous decomposition products

Organic acid vapors.

Carcinogenicity

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Methylene chloride (75-09-2)		
LD50 oral rat	1600 mg/kg	
LC50 inhalation rat (mg/l)	53 mg/l (Exposure time: 6 h)	
ATE US (oral)	1600.000 mg/kg body weight	
ATE US (vapors)	53.000 mg/l/4h	
ATE US (dust, mist)	53.000 mg/l/4h	
Skin corrosion/irritation	: Causes severe skin burns and eye damage.	
Serious eye damage/irritation	: Causes serious eye damage.	

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Methylene chloride is an experimental mutagen.

May cause cancer.
 Methylene chloride is an experimental carcinogen.

	,
Methylene chloride (75-09-2)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity, 3 - Reasonably anticipated to be Human Carcinogen

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

May cause damage to organs through prolonged or repeated exposure

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : May cause irritation to the respiratory tract. Overexposure may cause: Coughing. Headache.

Nausea.

Symptoms/injuries after skin contact : Causes (severe) skin burns.

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

Symptoms/injuries after ingestion : May be harmful if swallowed.

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SECTION 12: Ecological information

12.1. Toxicity

Methylene chloride (75-09-2)		
LC50 fish 1	140.8 - 277.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
EC50 Daphnia 1	1532 - 1847 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])	
LC50 fish 2	262 - 855 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
EC50 Daphnia 2	190 mg/l (Exposure time: 48 h - Species: Daphnia magna)	

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Methylene chloride (75-09-2)			
BCF fish 1	6.4 - 40		
Log Pow	1.25		

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

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

Effect on ozone layer : No additional information available

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : 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

14.1. UN number

UN-No.(DOT) : 3265 DOT NA no. UN3265

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Corrosive liquid, acidic, organic, n.o.s.

 $(2\hbox{-}(4\hbox{-}CHLOROSULFONYLPHENYL)ETHYLTRIMETHOXYSILANE, 50\% in methylene$

chloride)

Hazard Classes (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : II - Medium Danger

DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional information

Other information : No supplementary information available.

Transport by sea

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

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

section is exceeded.

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

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Air transport

DOT Quantity Limitations Passenger aircraft/rail : 1 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 30 L

CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

2-(4-CHLOROSULFONYLPHENYL)ETHYLTRIMETHOXYSILANE, 50% in methylene chloride (126519-89-9)

TSCA Exemption/Exclusion C

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.

Methylene chloride (75-09-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on United States SARA Section 313

SARA Section 313 - Emission Reporting 0.1 %

2-(4-Chlorosulfonylphenyl)ethyltrimethoxysilane (126519-89-9)

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

15.2. International regulations

Methylene chloride (75-09-2)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Canadian DSL (Domestic Sustances List)

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

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

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

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

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

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on the Canadian IDL (Ingredient Disclosure List)

2-(4-Chlorosulfonylphenyl)ethyltrimethoxysilane (126519-89-9)

15.3. US State regulations

2-(4-CHLOROSULFONYLPHENYL)ETHYLTRIMETHOXYSILANE, 50% in methylene chloride(126519-89-9)			
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		

Methylene chloride (75-09-2)

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 significance risk level (NSRL)		
Yes	No	No	No			
2-(4-Chlorosulfonylphenyl)ethyltrimethoxysilane (126519-89-9)						
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 significance risk level (NSRL)		
No	No	No	No			

Methylene chloride (75-09-2)

- U.S. California Priority Toxic Pollutants Human Health Criteria
- U.S. California SCAQMD Toxic Air Contaminants Carcinogens
- U.S. California SCAQMD Toxic Air Contaminants Non-Cancer Acute
- U.S. California SCAQMD Toxic Air Contaminants Non-Cancer Chronic
- U.S. California SDAPCD Toxic Air Contaminants Carcinogenic Impacts Must Be Calculated
- U.S. California Toxic Air Contaminant List (AB 1807, AB 2728)
- U.S. Colorado Groundwater Quality Standards

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Methylene chloride (75-09-2)
U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues
U.S. - Colorado - Primary Drinking Water Regulations - Maximum Contaminant Level Goals (MCLGs)
U.S. - Colorado - Primary Drinking Water Regulations - Maximum Contaminant Levels (MCLs)
U.S. - Connecticut - Drinking Water Quality Standards - Maximum Contaminant Levels
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Connecticut - Water Quality Standards - Consumption of Organisms Only
U.S. - Connecticut - Water Quality Standards - Consumption of Water and Organisms
U.S. - Connecticut - Water Quality Standards - Health Designations
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Delaware - Volatile Organic Compounds Exempt from Requirements
U.S. - Florida - Drinking Water Standards - Volatile Organic Contaminants - Maximum Contaminant Levels (MCLs)
U.S. - Georgia - Drinking Water - Maximum Contaminant Levels (MCLs)
U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - Acceptable Maximum Peak Above the Ceiling Concentration for an 8-Hour Shift
U.S. - Idaho - Occupational Exposure Limits - Ceilings
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Illinois - Toxic Air Contaminants
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
U.S. - Maine - Chemicals of High Concern
U.S. - Maryland - Surface Water Quality Standards - Consumption of Organisms Only
U.S. - Maryland - Surface Water Quality Standards - Consumption of Water and Organisms
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
U.S. - Massachusetts - Drinking Water - Maximum Contaminant Levels (MCLs)
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2 U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Threshold Effects Exposure Limits (TELs)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Massachusetts - Volatile Organic Compounds Exempt From Requirements
U.S. - Michigan - Occupational Exposure Limits - STELs
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Groundwater Health Risk Limits
U.S. - Minnesota - Hazardous Substance List
U.S. - Missouri - Drinking Water - Maximum Contaminant Levels (MCLs)
U.S. - Nebraska - Drinking Water - Maximum Contaminant Levels (MCLs)
U.S. - New Hampshire - Drinking Water - Maximum Contaminant Levels (MCLs)
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Control and Prohibition of Air Pollution by Toxic Substances
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
U.S. - New Jersey - Excluded Volatile Organic Compounds
U.S. - New Jersey - Primary Drinking Water Standards - Maximum Contaminant Levels - MCLs
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New Jersey - Water Quality - Ground Water Quality Criteria
U.S. - New Jersey - Water Quality - Practical Quantitation Levels (PQLs)
U.S. - New Mexico - Water Quality - Standards for Ground Water of 10,000 mg/L TDS Concentration or Less
U.S. - New York - Occupational Exposure Limits - Ceilings
U.S. - New York - Priority Chemical Avoidance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - North Carolina - Control of Toxic Air Pollutants
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - North Dakota - Air Pollutants - Unit Risk Factors
U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues
U.S. - North Dakota - Water Quality Standards - Human Health Value for Class III
U.S. - North Dakota - Water Quality Standards - Human Health Value for Classes I, IA, II
U.S. - Oregon - Permissible Exposure Limits - STELs
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - Pennsylvania - Drinking Water - Maximum Contaminant Levels (MCLs)
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List
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- U.S. Rhode Island Air Toxics Acceptable Ambient Levels 1-Hour
- U.S. Rhode Island Air Toxics Acceptable Ambient Levels 24-Hour
- U.S. Rhode Island Air Toxics Acceptable Ambient Levels Annual
- U.S. Rhode Island Water Quality Standards Acute Freshwater Aquatic Life Criteria
- U.S. Rhode Island Water Quality Standards Carcinogens
 U.S. Rhode Island Water Quality Standards Chronic Freshwater Aquatic Life Criteria
- U.S. Rhode Island Water Quality Standards Human Health Criteria for Consumption of Aquatic Organisms Only
- U.S. Rhode Island Water Quality Standards Human Health Criteria for Consumption of Water and Aquatic Organisms
- U.S. South Carolina Maximum Contaminant Levels (MCLs)
- U.S. South Carolina Toxic Air Pollutants Maximum Allowable Concentrations
- U.S. South Carolina Toxic Air Pollutants Pollutant Categories
- U.S. Tennessee Occupational Exposure Limits STELs
- U.S. Tennessee Occupational Exposure Limits TWAs
- U.S. Texas Drinking Water Standards Maximum Contaminant Levels (MCLs)
- U.S. Texas Effects Screening Levels Long Term
- U.S. Texas Effects Screening Levels Short Term
- U.S. Utah Drinking Water Maximum Contaminant Levels (MCLs)
- U.S. Vermont Hazardous Waste Hazardous Constituents
- U.S. Vermont Permissible Exposure Limits Ceilings
- U.S. Vermont Permissible Exposure Limits STELs
- U.S. Vermont Permissible Exposure Limits TWAs
- U.S. Virginia Water Quality Standards Known or Suspected Carcinogens
- U.S. Virginia Water Quality Standards Public Water Supply Effluent Limits
- U.S. Virginia Water Quality Standards Surface Waters Not Used for the Public Water Supply Effluent Limits
- U.S. Washington Dangerous Waste Dangerous Waste Constituents List
- U.S. Washington Dangerous Waste Discarded Chemical Products List
- U.S. Washington Permissible Exposure Limits STELs
- U.S. Washington Permissible Exposure Limits TWAs
- U.S. West Virginia Air Quality Toxic Air Pollutant Emission Limits
- U.S. West Virginia Water Quality Groundwater Standards Ceiling Concentrations
 U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 25 Feet to Less Than 40 Feet
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 40 Feet to Less Than 75 Feet
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 75 Feet or Greater
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights Less Than 25 Feet

SECTION 16: Other information

Indication of changes

Abbreviations and acronyms

- : Applied minor changes to section 9.
- 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:

UA	on in principles.				
	Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4			
	Carc. 1B	Carcinogenicity Category 1B			
	Eye Dam. 1	Serious eye damage/eye irritation Category 1			
	Skin Corr. 1B	Skin corrosion/irritation Category 1B			
	H302	Harmful if swallowed			
	H314	Causes severe skin burns and eye damage			
	H318	Causes serious eye damage			
	H350	May cause cancer			

HMIS III Rating

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

given

Flammability : 2 Moderate Hazard Physical : 1 Slight Hazard

Prepared by safety and environmental affairs.

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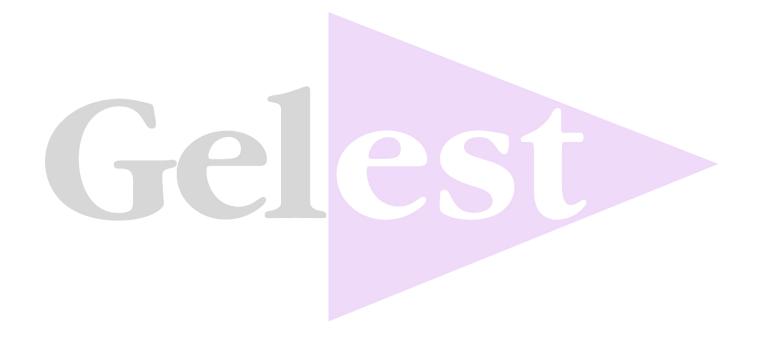
Version: 1.1

SDS US (GHS HazCom 2012) - Custom

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

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