Sulfolane, Electronic Grade

Version 4.0 Revision Date 2024-03-27

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

Product information

Product Name	:	Sulfolane, Electronic Grade
Material	:	1127444, 1125135, 1125134, 1125121, 1121914, 1092834, 1072474, 1101562, 1074221, 1102313, 1069532, 1101536, 1024650, 1024652, 1024651, 1105024, 1105023
Use	:	Solvent
Company	:	Chevron Phillips Chemical Company LP Specialty Chemicals 10001 Six Pines Drive The Woodlands, TX 77380

Emergency telephone:

Health:
866.442.9628 (North America)
1.832.813.4984 (International)
Transport:
CHEMTREC 800.424.9300 or 703.527.3887(int'l)
Asia: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090
Mexico CHEMTREC 01-800-681-9531 (24 hours)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600
Argentina: +(54)-1159839431
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Austria: VIZ +43 1 406 43 43 (24 hours/day, 7 days/week)
Belgium: 070 245 245 (24 hours/day, 7 days/week)
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24 hours/day, 7 days/week)
Cyprus: 1401
Czech Republic: Toxicological Information Center +420 224 919 293, +420 224 915 402
Denmark: Danish Poison Center (Giftlinjen): +45 8212 1212
Estonia: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Finland: 0800 147 111 09 471 977 (24 hours/day)
France: ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (24 hours/day, 7 days/week)
Germany: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Greece: (0030) 2107793777 (24 hours/day, 7 days/week)
Hungary: +36-80-201-199 (24 hours/day, 7 days/week)
Iceland: 543 2222 (24 hours/day, 7 days/week)
Ireland: BIG +32.14.584545 (phone) or +32.14583516 (telefax)

Italy: POISON CENTER MILAN – Azienda Ospedaliera Niguarda Ca` Grande Tel. +39 02 66101029; POISON CENTER ROME – Policlinico “Agostino Gemelli”, Servizio di tossicologia clinica Tel. +39 06 3054343; POISON CENTER ROME – Ospedale Pediatrico Bambino Gesù Tel. +39 06 68593726;POISON CENTER ROME – Policlinico “Umberto I” Tel. +39 06 4997 8000; POISON CENTER FOGGIA – Azienda Ospedaliera Universitaria Riuniti Tel. +39 0881 732326; POISON CENTER NAPLES – Azienda Ospedaliera “Antonio Cardarelli” Tel. +39 081 7472870; POISON CENTER FLORENCE – Azienda Ospedaliera universitaria Careggi Tel. +39 055 7947819; POISON CENTER PAVIA – IRCCS Fondazione Salvatore Maugeri Tel. +39 0382 24444; POISON CENTER BERGAMO – Azienda Ospedaliera “Papa Giovanni XXIII” Tel. 800 883 300; POISON CENTER VERONA – Azienda Ospedaliera Universitaria integrata Tel. 800 011 858;
Latvia: State Fire and Rescue Service, phone number: 112; Toxicology and Sepsis Clinic Poisoning and Drug Information Center, Hipokrāta 2, Riga, Latvia, LV-1038, phone number +371 67042473. (24 hours.)
Liechtenstein: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24 hours/day, 7 days/week)
Malta: +356 2395 2000
The Netherlands: NVIC: +31 (0)88 755 8000
Norway: 22 59 13 00 (24 hours/day, 7 days/week)
Poland: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Portugal: CIAV phone number: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: Phone number: 112
Spain: National Emergency Telephone Number of Spanish Poison Centre: +34 91 562 04 20 (24 hours/day, 7 days/week)
Sweden: 112 – ask for Poisons Information

Responsible Department	:	Product Safety and Toxicology Group
E-mail address	:	SDS@CPChem.com
Website	:	www.CPChem.com

SECTION 2: Hazards identification

Classification of the substance or mixture

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Classification

: Acute toxicity, Category 4, Oral
Reproductive toxicity, Category 1B
Specific target organ toxicity - repeated exposure, Category 2, Immune system

Labeling

Symbol(s) :

Signal Word : Danger

Hazard Statements : H302: Harmful if swallowed.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to organs (Immune system) through

prolonged or repeated exposure.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Symptoms of Overexposure : No data available

Carcinogenicity:

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3: Composition/information on ingredients

Synonyms : E.G. Sulfolane
Tetramethylene sulfone
Tetrahydrothiopehen-1, 1-dioxide
Sulfolane-E
Sulfolane-K

Molecular formula : Mixture

Component	CAS-No.	Weight %
Sulfolane	126-33-0	97

SECTION 4: First aid measures

General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.

If inhaled	:	If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Induce vomiting immediately and call a physician. Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

Notes to physician

Symptoms	:	No data available.
Risks	:	No data available.
Treatment	:	No data available.

SECTION 5: Firefighting measures

Flash point	:	166°C (331°F) Method: Cleveland Open Cup
Autoignition temperature	:	No data available
Unsuitable extinguishing media	:	High volume water jet.
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Fire and explosion protection	:	Normal measures for preventive fire protection.
Hazardous decomposition products	:	Carbon oxides. Sulfur oxides.

SECTION 6: Accidental release measures

Personal precautions	:	Use personal protective equipment.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Handling

Advice on safe handling : Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Use : Solvent

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Chevron Phillips Chemical Company LP

Components	Basis	Value	Control parameters	Note
Sulfolane	Manufacturer	TWA	0.37 ppm,	

US

Components	Basis	Value	Control parameters	Note

Engineering measures

Adequate ventilation to control airborned concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal protective equipment

Respiratory protection : If ventilation or other engineering controls are not adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure, a supplied-air NIOSH approved respirator may be appropriate. If exposure to harmful levels of airborne material may occur, a NIOSH approved respirator that provides protection may be appropriate, such as:. A positive pressure, air-supplying respirator may be appropriate if there is potential for uncontrolled release, aerosolization, exposure levels are not known, or other circumstances where air-

purifying respirators may not provide adequate protection.

Hand protection	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Eye protection	:	Eye wash bottle with pure water. Tightly fitting safety goggles.
Skin and body protection	:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate:. Protective suit. Safety shoes.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Form	:	liquid
Physical state	:	liquid
Color	:	Clear
Odor	:	Mild

Safety data

Flash point	:	166°C (331°F) Method: Cleveland Open Cup
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Oxidizing properties	:	No
Autoignition temperature	:	No data available
Thermal decomposition	:	Not applicable
Molecular formula	:	Mixture
Molecular weight	:	Not applicable
pH	:	7 - 10
Freezing point	:	No data available
Pour point		No data available

Boiling point/boiling range	:	100-288°C (212-550°F)
Vapor pressure	:	No data available
Relative density	:	1.26 at 30 °C (86 °F)
Water solubility	:	partly miscible, Miscible
Partition coefficient: n-octanol/water	:	log Pow: 0 at 20°C (68°F)
Viscosity, kinematic	:	No data available
Relative vapor density	:	4 (Air = 1.0)
Evaporation rate	:	< 1
Percent volatile	:	> 99 %
Conductivity	:	No data available

SECTION 10: Stability and reactivity

Reactivity : Stable under recommended storage conditions.

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions

Hazardous reactions : Hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid : No data available.

Materials to avoid : May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Thermal decomposition : Not applicable

Hazardous decomposition products : Carbon oxides
Sulfur oxides

Other data : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Acute oral toxicity

Sulfolane : LD50: 2,068 mg/kg
Species: Rat
Sex: male and female
Method: OECD Test Guideline 401

Acute inhalation toxicity

Sulfolane : LC50: > 12000 mg/m3Exposure time: 4 h
Species: Rat
Sex: male and female
Test atmosphere: vapor
An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity

Sulfolane : LD50: > 2,000 mg/kg
Species: Rat
Method: Directive 67/548/EEC, Annex V, B.3.

Skin irritation

Sulfolane : No skin irritation

Eye irritation

Sulfolane : No eye irritation

Sensitization

Sulfolane : Did not cause sensitization on laboratory animals.

Repeated dose toxicity

Sulfolane : Species: Rat, male
Sex: male
Application Route: oral gavage
Dose: 60, 200, 700 mg/kg bw/day
Exposure time: 28 d
Number of exposures: daily
NOEL: 60 mg/kg
Target Organs: Kidney

Species: Rat, female
Sex: female
Application Route: oral gavage
Dose: 60, 200, 700 mg/kg bw/day
Exposure time: 28 d
Number of exposures: Daily
NOEL: 200 mg/kg
Lowest observable effect level: 700 mg/kg

Species: Rat
Application Route: Inhalation
Dose: 2.8, 4.0, 20 mg/m3
Exposure time: 90-110 days
Number of exposures: 23 hrs/d, 7d/wk
NOEL: 20 mg/m3

Species: Guinea pig
Application Route: Inhalation
Dose: 4.0, 20, 159, 200 mg/m3
Exposure time: 90-110 days
Number of exposures: 23 hrs/d, 7 d/wk
NOEL: 159 mg/m3
Target Organs: Lungs, Blood, Liver

Species: Rat, male
Sex: male
Application Route: oral (drinking water)
Dose: 2.1, 8.8, 35, 131.7 mg/kg/d
Exposure time: 13 wk
Number of exposures: Daily
NOEL: 8.8 mg/kg
Method: OECD Test Guideline 408
Target Organs: Kidney

Species: Rat, female
Sex: female
Application Route: oral (drinking water)
Dose: 2.9, 10.6, 42, 191.1 mg/kg/d
Exposure time: 13 wk
Number of exposures: Daily
NOEL: 2.9 mg/kg
Method: OECD Test Guideline 408
Target Organs: Immune system

Species: Rat, male and female
Sex: male and female
Application Route: oral gavage
Dose: 80, 200, 500 mg/kg
Exposure time: 100 d
Number of exposures: Daily
NOEL: 200 mg/kg
Method: OECD Test Guideline 443
Target Organs: Immune system

Genotoxicity in vitro

Sulfolane : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471

Result: negative

Test Type: Mouse lymphoma assay
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: Sister Chromatid Exchange Assay
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: Chromosome aberration test in vitro
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Test Type: Mouse lymphoma assay
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 490
Result: negative

Reproductive toxicity

Sulfolane : Species: Rat
Sex: female
Application Route: oral gavage
Dose: 60, 200, 700 mg/kg
Number of exposures: Daily
Test period: 2 wk premating to lactation D4
Method: OECD Guideline 421
NOAEL Parent: 200 mg/kg bw/day
NOAEL F1: 60 mg/kg bw/day
Decrease birth index and number of pups

Species: Rat
Sex: male
Application Route: oral gavage
Dose: 80, 200, 500 mg/kg/d
Number of exposures: Daily
Method: OECD Test Guideline 443
NOAEL Parent: 200 mg/kg/d
NOAEL F1: 200 mg/kg/d
reduced fertility in male

Species: Rat
Sex: female
Application Route: oral gavage
Dose: 80, 200, 500 mg/kg/d
Number of exposures: Daily
Method: OECD Test Guideline 443
NOAEL Parent: 200 mg/kg/d
NOAEL F1: 200 mg/kg/d
Decrease birth index and number of pups

Developmental Toxicity

Sulfolane : Species: Rat
Application Route: oral gavage
Dose: 60, 200, 700 mg/kg

Number of exposures: Daily
Test period: 2 wk premating to lactation D4
NOAEL Teratogenicity: 60 mg/kg bw/day
NOAEL Maternal: 200 mg/kg bw/day

Species: Rat
Application Route: oral gavage
Dose: 100, 200, 500 mg/kg/day
Number of exposures: Daily
Test period: GD 1 - 19
Method: OECD Guideline 414
NOAEL Teratogenicity: 200 mg/kg
NOAEL Maternal: 100 mg/kg
May damage the unborn child.

Sulfolane, Electronic Grade
Aspiration toxicity : No aspiration toxicity classification.

Acute effects

Sulfolane : Harmful if swallowed.

CMR effects

Sulfolane : Carcinogenicity: Not available
Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Reproductive toxicity: Clear evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments

Sulfolane, Electronic Grade
Further information : No data available.

SECTION 12: Ecological information

Toxicity to fish

Sulfolane : LC50: > 100 mg/l
Exposure time: 96 h
Species: Oryzias latipes (Orange-red killifish)
static test Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates

Sulfolane : EC50: 852 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
static test Method: OECD Test Guideline 202

Toxicity to algae

Sulfolane : EC50: 500 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)

Method: OECD Test Guideline 201

NOEC: 171 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Method: OECD Test Guideline 201

Biodegradability

Sulfolane : Result: Not readily biodegradable.
10.1 %
Testing period: 14 d
Method: OECD Test Guideline 301C

Bioaccumulation

Sulfolane : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): < 1.3
This material is not expected to bioaccumulate.

Mobility

Sulfolane : Groundwater contamination is possible.

Results of PBT assessment
Sulfolane : Non-classified vPvB substance, Non-classified PBT substance

Additional ecological information : This material is not expected to be harmful to aquatic organisms.

Ecotoxicology Assessment

Short-term (acute) aquatic hazard
Sulfolane : This material is not expected to be harmful to aquatic organisms.

Long-term (chronic) aquatic hazard
Sulfolane : This material is not expected to be harmful to aquatic organisms.

SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product : Do not dispose of waste into sewer. Do not contaminate

ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

National legislation

SARA 311/312 Hazards : Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)
Acute toxicity (any route of exposure)

EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO – KNOW

CERCLA Reportable Quantity : This material does not contain any components with a CERCLA RQ.

SARA 302 Reportable Quantity : This material does not contain any components with a SARA 302 RQ.

SARA 302 Threshold Planning Quantity : This material does not contain any components with a section 302 EHS TPQ.

SARA 304 Reportable Quantity : This material does not contain any components with a section 304 EHS RQ.

SARA 313 Components : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):
: Sulfolane - 126-33-0

US State Regulations

Pennsylvania Right To Know : Sulfolane - 126-33-0

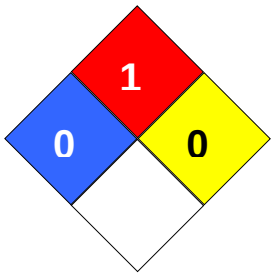
California Prop. 65 Components : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status

Europe REACH	:	This product is in full compliance according to REACH regulation 1907/2006/EC.
Switzerland CH INV	:	On the inventory, or in compliance with the inventory
United States of America (USA) TSCA	:	On or in compliance with the active portion of the TSCA inventory
Canada DSL	:	All components of this product are on the Canadian DSL
Other AICS	:	On the inventory, or in compliance with the inventory
New Zealand NZIoC	:	On the inventory, or in compliance with the inventory
Japan ENCS	:	On the inventory, or in compliance with the inventory
Korea KECI	:	A substance(s) in this product was not registered, notified to be registered, or exempted from registration by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record has themselves notified the substance or the exported amount does not exceed the minimum threshold quantity of the non-registered substance(s).
Philippines PICCS	:	On the inventory, or in compliance with the inventory
China IECSC	:	On the inventory, or in compliance with the inventory
Taiwan TCSI	:	On the inventory, or in compliance with the inventory

SECTION 16: Other information

NFPA Classification : Health Hazard: 0
Fire Hazard: 1
Reactivity Hazard: 0



Further information

Legacy SDS Number : 368550

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AIIC	Australian Inventory of Industrial Chemicals	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%	ATE	Acute toxicity estimate