

**Sulfole® 120 Mercaptan (tert-Dodecanethiol)**

Version 2.16

Revision Date 2019-10-10

according to GB/T 16483 and GB/T 17519

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

Product Name : Sulfole® 120 Mercaptan (tert-Dodecanethiol)
Material : 1121184, 1113774, 1017942, 1111452, 1024818, 1024817,
1103990, 1084934, 1101771, 1086417, 1086418, 1021548,
1036536, 1035962, 1021538, 1021539, 1021542, 1021543,
1021544, 1021546, 1021547, 1021550, 1021551, 1021552,
1021553, 1021719, 1032613, 1021545, 1021549, 10462848

Company : Chevron Phillips Chemical Company LP
10001 Six Pines Drive
The Woodlands, TX 77380

Local : Chevron Phillips Chemicals (Shanghai) Corporation
Room 1810-1812, Shanghai Mart,
2299 Yan An Road (W),
Shanghai, PRC 200336

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

EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)

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

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****GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2011)**

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Emergency Overview**Warning****Physical state:** Liquid **Color:** Colorless **Odor:** Repulsive

Hazards : Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May be harmful if swallowed and enters airways. May cause long lasting harmful effects to aquatic life.

Classification

: Skin corrosion/irritation, Category 2
 Serious eye damage/eye irritation, Category 2A
 Skin sensitization, Sub-category 1B
 Aspiration hazard, Category 2
 Long-term (chronic) aquatic hazard, Category 4

Labeling

Symbol(s)



Signal Word

: Warning

Hazard Statements

: H305: May be harmful if swallowed and enters airways.
 H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H319: Causes serious eye irritation.
 H413: May cause long lasting harmful effects to aquatic life.

Precautionary Statements

: **Prevention:**
 P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264: Wash skin thoroughly after handling.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/ eye protection/ face protection.
Response:
 P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P302+P352: IF ON SKIN: Wash with plenty of water.
 P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P331: Do NOT induce vomiting.
 P333 + P313: If skin irritation or rash 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.
Storage:
 P405: Store locked up.
Disposal:
 P501: Dispose of contents/ container to an approved waste

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disposal plant.

SECTION 3: Composition/information on ingredients

Synonyms : TDM
 Molecular formula : C₁₂H₂₆S

| Chemical name | CAS-No. / EINECS-No. | Concentration [wt%] |
|--------------------|----------------------|---------------------|
| tert-Dodecanethiol | 25103-58-6 | 90 - 100 |

SECTION 4: First aid measures

General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled : If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

Flash point : 98 - 110 °C (208 - 230 °F)

Autoignition temperature : 198 - 230 °C (388 - 446 °F)

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

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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. Ensure adequate ventilation.

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. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection**Ingredients with workplace control parameters****Chevron Phillips Chemical Company LP**

| Components | Basis | Value | Control parameters | Note |
|--------------------|--------------|-------|--------------------|------|
| tert-Dodecanethiol | Manufacturer | TWA | 0.1 ppm, | |

CN

| Components | Basis | Value | Control parameters | Note |
|------------|-------|-------|--------------------|------|
| | | | | |

SDS Number:100000068802

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Engineering measures

Adequate ventilation to control airborne 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 : Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Dusts and Mists / P100. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, 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. Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the 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.
- Protective measures : Wear suitable protective equipment. When using do not eat, drink or smoke. Avoid contact with skin.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties****Appearance**

- Physical state : Liquid
 Color : Colorless
 Odor : Repulsive

Safety data

- Flash point : 98 - 110 °C (208 - 230 °F)

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| | |
|--|---|
| Lower explosion limit | : No data available |
| Upper explosion limit | : No data available |
| Oxidizing properties | : no |
| Autoignition temperature | : 198 - 230 °C (388 - 446 °F) |
| Thermal decomposition | : 300 °F |
| Molecular formula | : C ₁₂ H ₂₆ S |
| Molecular weight | : 202.44 g/mol |
| pH | : Not applicable |
| Pour point | : No data available |
| Melting point/range | -16 °C (3 °F) |
| Boiling point/boiling range | : 233 °C (451 °F) |
| Vapor pressure | : 4.00 Pa at 24 °C (75 °F) |
| Relative density | : 0.86 at 16 °C (61 °F) |
| Water solubility | : 0.00393 mg/l Method: OECD Test Guideline 105 |
| Partition coefficient: n-octanol/water | : Pow: 7.43 at 20 °C (68 °F) |
| Viscosity, dynamic | : 2.6 cP at 20 °C (68 °F) |
| Viscosity, kinematic | : No data available |
| Relative vapor density | : 3 (Air = 1.0) |
| Evaporation rate | : < 1 |

SECTION 10: Stability and reactivity

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

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Possibility of hazardous reactions

- Hazardous reactions** : Further information: No decomposition if stored and applied as directed.
- Conditions to avoid** : Heat, sparks, fire, and oxidizing agents.
- Materials to avoid** : May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
- Thermal decomposition** : 300 °F
- Hazardous decomposition products** : Carbon oxides
Sulfur oxides
- Other data** : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information**Acute oral toxicity**

tert-Dodecanethiol : LD50: > 2,000 mg/kg
Species: Rat
Sex: female
Method: OECD Test Guideline 423

Acute inhalation toxicity

tert-Dodecanethiol : LC50: > 1.97 mg/l
Exposure time: 4 h
Species: Rat
Sex: male and female
Method: OECD Test Guideline 403
Information given is based on data obtained from similar substances.

Acute dermal toxicity

tert-Dodecanethiol : LD50: > 2,000 mg/kg
Species: Rat
Sex: male
Method: OECD Test Guideline 402
Information given is based on data obtained from similar substances.

Skin irritation

tert-Dodecanethiol : Skin irritation

Eye irritation

tert-Dodecanethiol : Eye irritation

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Sensitization

tert-Dodecanethiol : The product is a skin sensitizer, sub-category 1B.

Repeated dose toxicity

tert-Dodecanethiol : Species: Rat, male
Sex: male
Application Route: Inhalation
Dose: 0, 26, 98 ppm
Exposure time: 4 wk
Number of exposures: 6 h/d, 5 d/wk
Lowest observable effect level: 26 ppm
Method: OECD Test Guideline 412
Target Organs: Kidney, Liver

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Species: Rat, female
Sex: female
Application Route: Inhalation
Dose: 0, 26, 98 ppm
Exposure time: 4 wk
Number of exposures: 6 h/d, 5 d/wk
NOEL: 26 ppm
Method: OECD Guideline 412
Target Organs: Liver, Kidney

Species: Dog, male and female
Sex: male and female
Application Route: Inhalation
Dose: 0, 25, 106 ppm
Exposure time: 4 wk
Number of exposures: 6 h/d, 5 d/wk
NOEL: 25 ppm
Lowest observable effect level: 109 ppm
Method: OECD Test Guideline 412
Target Organs: Liver

Species: Mouse, male and female
Sex: male and female
Application Route: Inhalation
Dose: 0, 25, 109 ppm
Exposure time: 4 wk
Number of exposures: 6 h/d, 5 d/wk
Lowest observable effect level: 25 ppm
Method: OECD Test Guideline 412
Target Organs: Liver

Species: Rat, male
Sex: male
Application Route: oral gavage
Dose: 10, 50, 250 mg/kg
Exposure time: 35 d
Number of exposures: once daily
NOEL: 50 mg/kg
Method: OECD Guideline 422
Target Organs: Liver, spleen
Information given is based on data obtained from similar substances.

Species: Rat, female
Sex: female
Application Route: oral gavage
Dose: 10, 50, 250 mg/kg
Exposure time: 53 d
Number of exposures: once daily
NOEL: 50 mg/kg
Method: OECD Guideline 422
Target Organs: Liver, spleen
Information given is based on data obtained from similar substances.

Species: Rat, male
Sex: male
Application Route: Inhalation
Dose: 5, 25, 100 ppm
Exposure time: 90 d

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Number of exposures: 6h/d, 5d/wk
 NOEL: 25 ppm
 Method: OECD Test Guideline 413

Species: Rat, female
 Sex: female
 Application Route: Inhalation
 Dose: 5, 25, 100 ppm
 Exposure time: 90 d
 Number of exposures: 6h/d, 5d/wk
 NOEL: 25 ppm
 Method: OECD Test Guideline 413

Genotoxicity in vitro

tert-Dodecanethiol : 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 Guideline 476
 Result: negative

Test Type: Sister Chromatid Exchange Assay
 Metabolic activation: with and without metabolic activation
 Method: OECD Guideline 479
 Result: negative

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

Genotoxicity in vivo

tert-Dodecanethiol : Test Type: In vivo micronucleus test
 Species: Mouse
 Route of Application: Oral
 Dose: 1250, 2500, 5000 mg/kg/bw
 Method: Mutagenicity (micronucleus test)
 Result: negative
 Remarks: Information given is based on data obtained from similar substances.

Reproductive toxicity

tert-Dodecanethiol : Species: Rat
 Sex: male
 Application Route: oral gavage
 Dose: 10, 50, 250 mg/kg/d
 Exposure time: 35 d
 Number of exposures: Daily
 Method: OECD Guideline 422
 NOAEL Parent: \geq 250 mg/kg
 Information given is based on data obtained from similar substances.

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Species: Rat
 Sex: female
 Application Route: oral gavage
 Dose: 10, 50, 250 mg/kg/d
 Exposure time: 53 d
 Number of exposures: Daily
 Method: OECD Guideline 422
 NOAEL Parent: 50 mg/kg
 NOAEL F1: 50 mg/kg
 Information given is based on data obtained from similar substances.
 Decrease in Delivery Index

Developmental Toxicity

tert-Dodecanethiol : Species: Rat
 Application Route: Inhalation
 Dose: 0, 22.7, 88.6 ppm
 Number of exposures: 6 hrs/d
 Test period: GD 6-19
 Method: OECD Guideline 414
 NOAEL Teratogenicity: \geq 88.6 ppm
 No adverse effects expected

Species: Mouse
 Application Route: Inhalation
 Dose: 0, 22.7, 88.6 ppm
 Number of exposures: 6 hrs/d
 Test period: GD 6-19
 Method: OECD Guideline 414
 NOAEL Teratogenicity: \geq 88.6 ppm
 No adverse effects expected

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Aspiration toxicity : May be harmful if swallowed and enters airways.

CMR effects

tert-Dodecanethiol : Carcinogenicity: Not available
 Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
 Teratogenicity: Animal testing did not show any effects on fetal development.
 Reproductive toxicity: No toxicity to reproduction

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Further information : Solvents may degrease the skin.

SECTION 12: Ecological information**Toxicity to fish**

tert-Dodecanethiol : LL50: $>$ 100 mg/l
 Exposure time: 96 h
 Species: Danio rerio (Zebra Fish)

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static test Method: OECD Test Guideline 203
No toxicity at the limit of solubility.

Toxicity to daphnia and other aquatic invertebrates

tert-Dodecanethiol : EC50: > 0.056 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
semi-static test Method: OECD Test Guideline 202
No toxicity at the limit of solubility.

Toxicity to bacteria

tert-Dodecanethiol : NOEC: 8.6 mg/l
Exposure time: 3 h
Growth rate
Respiration inhibition
Method: OECD Test Guideline 209

NOEC: > 10 mg/l
Exposure time: 3 h
Growth rate
Respiration inhibition
Method: OECD Test Guideline 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

tert-Dodecanethiol : NOEC: 0.0108 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
semi-static test
Method: OECD Test Guideline 211
No toxicity at the limit of solubility.

Biodegradability

tert-Dodecanethiol : Result: Not readily biodegradable.
0 %
Testing period: 28 d
Method: OECD Test Guideline 301D

Bioaccumulation

tert-Dodecanethiol : Species: Danio rerio (zebra fish)
Exposure time: 15 d
Bioconcentration factor (BCF): > 500 - < 1,950
Method: OECD Test Guideline 305
Biomagnification factor <1
The product may be accumulated in organisms.

Results of PBT assessment

tert-Dodecanethiol : Non-classified PBT substance, Non-classified vPvB substance

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Additional ecological information : May cause long lasting harmful effects to aquatic life.

Ecotoxicology Assessment

Short-term (acute) aquatic hazard
tert-Dodecanethiol : No toxicity at the limit of solubility.

Long-term (chronic) aquatic hazard
tert-Dodecanethiol : May cause long lasting harmful effects to aquatic life.

Toxicity Data on Soil
tert-Dodecanethiol : Adsorbs on soil.

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 : The product should not be allowed to enter drains, water courses or the soil. 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)

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UN3334, AVIATION REGULATED LIQUID, N.O.S., (TERT-DODECANETHIOL), 9, III

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.

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

| | |
|--------------------------|---|
| Other information | : tert- Dodecanethiol, S.T. 3, Cat.Y |
|--------------------------|---|

SECTION 15: Regulatory information**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 |
| Australia 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 | : | All substances in this product were registered, notified to be registered, or exempted from registration by CPChem through an Only Representative according to K-REACH regulations. Importation of this product is permitted if the Korean Importer of Record was included on CPChem's notifications or if the Importer of Record themselves notified the substances. |
| 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 |

Other regulations

: Law on Prevention and Control of Environment Pollution by Solid Waste, Provisions on the Safe Use of Chemicals at Workplace, Law on the Prevention and Control of Occupational Diseases, Fire Protection Law

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SECTION 16: Other information**Further information**

Legacy SDS Number : 34650

Local emergency contact number: 0532-83889090

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% |
| AICS | Australia, Inventory of Chemical Substances | 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% | | |

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