



## Sulfole® 120 Mercaptan (tert-Dodecanethiol)

Version 2.12

Revision Date 2026-03-05

MSDS number: AA00974-0000000134

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

Product Name : Sulfole® 120 Mercaptan (tert-Dodecanethiol)  
 Material : 1124727, 1124726, 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

Recommended use of the product : Process regulators, used in vulcanization or polymerization processes  
 Restrictions on use : None known.

**Address** : Chevron Phillips Chemical Company LP  
 9500 Lakeside Blvd.  
 The Woodlands, TX 77381

Address : CHEVRON PHILLIPS CHEMICALS ASIA PTE. LTD.  
 C/O DONG WOO CORPORATION  
 #B-2601, JEONGJAIL-RO,  
 BUNDANG-GU, SEONGNAMI-SI,  
 GYEONGGI-DO, 13557  
 SOUTH KOREA  
 Telephone no.: +612-9186-1132

#### 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

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

Version 2.12

Revision Date 2026-03-05

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

Organization that prepared the SDS : Product Safety and Toxicology Group

E-mail address : SDS@CPChem.com

Website : www.CPChem.com

Appointees : 회사명: 리이치24시코리아(주).

주소: 서울특별시 강남구 강남대로 94길 34,4층

전화: +82-02-6245-1610

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

Version 2.12

Revision Date 2026-03-05

**SECTION 2: Hazards identification****Hazard classification**

**Standards for classification and labeling of chemical substances and material safety data sheet (ministry of employment and labor public notice No. 2020-130) (GHS 2015)**

**Classification**

- : Skin corrosion/irritation, Category 2
- Skin sensitization, Category 1B
- Short-term (acute) aquatic hazard, Category 1
- Long-term (chronic) aquatic hazard, Category 1

**Warning label elements including precautionary statements**

Symbol(s)



Signal Word

: Warning

Hazard Statements

- : H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements

- : **Prevention:**
- P261: Avoid breathing mist or vapors.
- 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.
- Response:**
- P302 + P352: IF ON SKIN: Wash with plenty of water.
- P321: Specific treatment (see supplemental first aid instructions on this label).
- P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.
- P362 + P364: Take off contaminated clothing and wash it before reuse.
- P391: Collect spillage.
- Disposal:**
- P501: Dispose of contents/ container according to waste-related laws

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

Version 2.12

Revision Date 2026-03-05

Other hazards which do not result in classification : None

**SECTION 3: Composition/information on ingredients**

Synonyms : TDM  
Tertiary Dodecyl Mercaptan  
Tert Dodecyl Mercaptan

Molecular formula : UVCB

Common name	Synonyms	CAS-No.	Concentration	KECI Number
tert-Dodecanethiol	tert-dodecanethiol	25103-58-6	98.5 % - 100%	KE-12852

**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.

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.

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

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

If swallowed : Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

**Other cautions for Doctors**

Symptoms : No information available.

Risks : No information available.

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

Version 2.12

Revision Date 2026-03-05

Treatment : Treat symptomatically.

**SECTION 5: Firefighting measures**

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

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 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

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5/21

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

Version 2.12

Revision Date 2026-03-05

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.

**Secure 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.

Uses advised against : None known.

Specific Use : Process regulators, used in vulcanization or polymerization processes

**SECTION 8: Exposure controls/personal protection****Chevron Phillips Chemical Company LP**

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

**KR**

Components	Basis	Value	Control parameters	Note
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**Chemical exposure standards, biological exposure standards, etc.**

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 : 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.

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

Version 2.12

Revision Date 2026-03-05

Eye protection	:	Eye wash bottle with pure water. Tightly fitting safety goggles.
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.
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:. Remove and wash contaminated clothing before re-use. Skin should be washed after contact. Footwear protecting against chemicals.
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
Odor Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	-16°C (3°F)
Pour point	:	No data available
Boiling point/boiling range	:	233°C (451°F)
Flash point	:	98-110°C (208-230°F) Method: closed cup
Evaporation rate	:	< 1
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available

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

Version 2.12

Revision Date 2026-03-05

Vapor pressure	:	4.00 Pa at 24°C (75°F)
Solubility	:	0.00393 mg/l Method: OECD Test Guideline 105
Relative density	:	0.86 at 16 °C (61 °F)
Vapor density	:	3 (Air = 1.0)
Partition coefficient: n-octanol/water	:	Pow: 7.43 at 20°C (68°F)
Autoignition temperature	:	198-230°C (388-446°F)
Decomposition temperature	:	300 °F
Viscosity, kinematic	:	No data available
Molecular weight	:	Varies
Viscosity, dynamic	:	2.6 cP at 20°C (68°F)

**SECTION 10: Stability and reactivity**

<b>Reactivity</b>	:	Stable under recommended storage conditions.
<b>Chemical stability</b>	:	This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Possibility of hazardous reactions</b>		
<b>Hazardous reactions</b>	:	Further information: No decomposition if stored and applied as directed.
<b>Conditions to avoid</b>	:	Heat, sparks, fire, and oxidizing agents.
<b>Materials to avoid</b>	:	May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
<b>Thermal decomposition</b>	:	300 °F
<b>Hazardous decomposition</b>	:	Carbon oxides

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

Version 2.12

Revision Date 2026-03-05

**products** Sulfur oxides**Other data** : No decomposition if stored and applied as directed.**SECTION 11: Toxicological information****Information on exposure routes****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  
Test atmosphere: vapor  
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.

**Sulfole® 120 Mercaptan (tert-Dodecanethiol)****Skin corrosion or irritation** : Skin irritation

May cause skin irritation and/or dermatitis.

**Sulfole® 120 Mercaptan (tert-Dodecanethiol)****Eye corrosion or irritation** : Eye irritation

Vapors may cause irritation to the eyes, respiratory system and the skin.

**Sulfole® 120 Mercaptan (tert-Dodecanethiol)****Respiratory Sensitization** : No data available

Causes sensitization.

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

Version 2.12

Revision Date 2026-03-05

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

The product is a skin sensitizer, sub-category 1B.  
May cause an allergic skin reaction.

**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

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

Version 2.12

Revision Date 2026-03-05

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: 50, 100, 200 mg/kg  
Exposure time: 10 wk  
Number of exposures: once daily  
NOEL: 200 mg/kg  
Method: OECD Guideline 422  
Target Organs: Kidney, Liver

Species: Rat, female  
Sex: female  
Application Route: oral gavage  
Dose: 50, 100, 200 mg/kg  
Exposure time: 8 - 9 wk  
Number of exposures: once daily  
NOEL: 200 mg/kg  
Method: OECD Guideline 422  
Target Organs: Liver

Species: Rat, male  
Sex: male  
Application Route: Inhalation  
Dose: 5, 25, 100 ppm

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

Version 2.12

Revision Date 2026-03-05

Exposure time: 13 wk  
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: 13 wk  
Number of exposures: 6h/d, 5d/wk  
NOEL: 25 ppm  
Method: OECD Test Guideline 413

**Germ cell mutagenicity (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 Test Guideline 473  
Result: negative

**Germ cell mutagenicity (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.

**Developmental Toxicity**

tert-Dodecanethiol : Species: Rat  
Application Route: Inhalation

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

Version 2.12

Revision Date 2026-03-05

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

Species: Rabbit  
 Application Route: oral gavage  
 Dose: 0, 50, 100, 200 mg/kg/d  
 Number of exposures: Daily  
 Test period: GD 6-28  
 Method: OECD Guideline 414  
 NOAEL Teratogenicity: 100 mg/kg  
 NOAEL Maternal: 100 mg/kg  
 Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses

**Specific Target Organ  
 Toxicity (Single Exposure)**

Not classified due to data which are conclusive although insufficient for classification.

**Specific Target Organ  
 Toxicity (Repeated  
 Exposure)**

Not classified due to data which are conclusive although insufficient for classification.

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

**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

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

Version 2.12

Revision Date 2026-03-05

**Reproductive toxicity**

tert-Dodecanethiol : Species: Rat  
Sex: male  
Application Route: oral gavage  
Dose: 50, 100, 200 mg/kg/d  
Exposure time: 10 wk  
Number of exposures: Daily  
Method: OECD Guideline 422  
NOAEL Parent: 200 mg/kg  
Animal testing did not show any effects on fertility.

Species: Rat  
Sex: female  
Application Route: oral gavage  
Dose: 50, 100, 200 mg/kg/d  
Exposure time: 8 - 9 wk  
Number of exposures: Daily  
Method: OECD Guideline 422  
NOAEL Parent: 200 mg/kg  
NOAEL F1: 100 mg/kg  
Animal testing did not show any effects on fertility.  
Reduced fetal weight.

Species: Rat  
Sex: male  
Application Route: oral gavage  
Dose: 25, 75, 200 mg/kg/d  
Exposure time: 18 wk  
Number of exposures: Daily  
Method: OECD Test Guideline 443  
NOAEL Parent: 200 mg/kg  
NOAEL F1: 200 mg/kg  
NOAEL F2: 200 mg/kg  
Animal testing did not show any effects on fertility.

Species: Rat  
Sex: female  
Application Route: oral gavage  
Dose: 25, 75, 200 mg/kg/d  
Exposure time: 16 - 18 wk  
Number of exposures: Daily  
Method: OECD Test Guideline 443  
NOAEL Parent: 200 mg/kg  
NOAEL F1: 200 mg/kg  
NOAEL F2: 200 mg/kg  
Animal testing did not show any effects on fertility.  
Reduced fetal weight.

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

**Further information** : Solvents may degrease the skin.

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

Version 2.12

Revision Date 2026-03-05

**SECTION 12: Ecological information**

## Ecological Toxicity

**Toxicity to fish**

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

**M-Factor  
TDM**

: M-Factor (Acute Aquat. Tox.) 10  
 M-Factor (Chron. Aquat. Tox.) 10

**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.

**Persistence and degradability**

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

Version 2.12

Revision Date 2026-03-05

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

**Bioaccumulative**

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.

**Mobility**

tert-Dodecanethiol : After release, adsorbs onto soil.

**Results of PBT assessment**

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

Other adverse effects : May cause long lasting harmful effects to aquatic life.

**Ecotoxicology Assessment**

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

**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.

Disposal method : 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.

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

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

Version 2.12

Revision Date 2026-03-05

**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.

UN Number	:	not regulated
UN Product Shipping Name	:	Not regulated as a dangerous good
Hazard Class	:	Not applicable
Packing Group	:	Not applicable
Marine Pollutant	:	Not applicable
Special Safety Measures on Mode of Transport	:	No data available

**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)**

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**

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

Version 2.12

Revision Date 2026-03-05

**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.

<b>Other information</b>	:	<b>Not applicable</b>
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**Maritime transport in bulk according to IMO instruments**

**SECTION 15: Regulatory information****National legislation****Regulation under the Occupational Safety and Health Act**

A Material Safety Datasheet (MSDS) for this product is not required according to article 41 of the ISHA.

Regulation	Chemical name	Threshold limits
Harmful Substances Prohibited from Manufacturing	:	Not applicable
Harmful Substances Required Permission for Manufacture	:	Not applicable

**Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act**

Regulation	Chemical name	Threshold limits
Toxic Chemicals	:	tert-dodecanethiol >= 2.5 %
	Listed	
Prohibited Chemicals	:	Not applicable
Restricted Chemicals	:	Not applicable
Toxic Release Inventory	:	Not applicable

Number:100000068802

18/21

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

Version 2.12

Revision Date 2026-03-05

**Dangerous Substances Safety Management Act**

Dangerous Substances : Flammable liquids, Type 3 petroleums, Water insoluble liquid  
 Safety Management Act

**Regulations by the Waste Management Act** : tert-Dodecanethiol: Designated Waste

**Regulations by other domestic and foreign laws**

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 AIIC : 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  
 Taiwan TCSI : On the inventory, or in compliance with the inventory  
 China IECSC : On the inventory, or in compliance with the inventory  
**Other regulations** : No data available

**SECTION 16: Other information**

Source of data	:	Korea. GHS based classification
Date of initial writing	:	2021-11-10
Revision number	:	4
Last revision date	:	2026-03-05

**Other information**

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

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

Version 2.12

Revision Date 2026-03-05

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

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

Version 2.12

Revision Date 2026-03-05