

Version 2.7 Revision Date 2022-12-22

MSDS number: AA00974-0000000279

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

Product Name : Scentinel® T Gas Odorant

Material : 1127874, 1121590, 1119675, 1111642, 1108705, 1105021,

1091012, 1093286, 1098227, 1099968, 1093716, 1070716, 1086438, 1097237, 1076222, 1070717, 1084326, 1096486, 1086439, 1024792, 1024724, 1024797, 1024795, 1028520,

1024791, 1024723, 1024794, 1024796, 1024793

Address : Chevron Phillips Chemical Company LP

Specialty Chemicals 10001 Six Pines Drive The Woodlands, TX 77380

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

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Austria: VIZ +43 1 406 43 43 (24 hours/day, 7 days/week) Belgium: 070 245 245 (24 hours/day, 7 days/week)

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

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

Appointees : 회사명: 리이치 24 시코리아㈜.

주소: 서울시 서초구 헌릉로 7,

외국기업창업지원연구센터

(IKP) 908-909호 전화: +82-1067838981

ODOR-FADE WARNING

A GAS LEAK CAN CAUSE A FIRE OR EXPLOSION RESULTING IN SERIOUS INJURY OR DEATH.

Be aware that the stenching chemical added to gas to make it detectable may not warn of a gas leak or the presence of propane or natural gas to all persons in every instance.

Instances where the odorant in an odorized gas may be undetectable include:

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- Odor intensity may fade or be eliminated for a variety of chemical and physical causes, including the oxidation of rusting pipes, adsorption into or sticking onto the interior of pipes or appliances, or absorption into liquids.
- · Contact with soil in underground leaks may de-odorize or remove odorant from the gas.
- Some people have a diminished ability, or inability to smell the stench. Factors that negatively affect a person's sense of smell include age, gender, medical conditions, and alcohol/tobacco usage.
- The stench of odorized gas may not awaken sleeping persons.
- Other odors may mask or hide the stench.
- Exposure to the odor for even a short period of time, may cause nasal fatigue, where a person can no longer smell the stench.

Gas detectors listed by the Underwriters Laboratories (UL) can be used as an extra measure of safety for detecting gas leaks, especially under conditions where the odorant alone may not provide an adequate warning. Gas detectors emit a loud, shrill sound when gas is present and do not depend on sense of smell. Because the odor intensity can fade or people may have problems with their sense of smell, we recommend installing, per manufacturer's instructions, one or more combustible gas detectors, in suitable locations to ensure adequate coverage to detect gas leaks.

Educate yourself, your employees, and your customers with the content of this warning and other important facts associated with the so-called "odor-fade phenomenon."

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)

Classification

: Flammable liquids, Category 2 Acute toxicity, Category 4, Oral Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 2

Aspiration hazard, Category 2

Long-term (chronic) aquatic hazard, Category 3

Warning label elements including precautionary statements

Symbol(s) :







Signal Word : Danger

Hazard Statements : H225: Highly flammable liquid and vapor.

H302: Harmful if swallowed.

H305: May be harmful if swallowed and enters airways.

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H315: Causes skin irritation.

H319: Causes serious eye irritation.

H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention:

P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P264: Wash the contact area thoroughly after handling.

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

P273: Avoid release to the environment.

P280: Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

P331: Do NOT induce vomiting.

P337 + P313: If eye irritation persists: Get medical advice/attention.

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

P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235: Store in a well-ventilated place. Keep cool.

Disposal:

P501: Dispose of contents and container according to wastes control act.

Other hazards which do not result in classification

: None

SECTION 3: Composition/information on ingredients

Synonyms : Tetrahydrothiophene

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Thiophane THT

Molecular formula : C4H8S

Common name	Synonyms	CAS-No.	Concentration	KECI Number
Tetrahydrothiophene	tetrahydrothiophe ne	110-01-0	99 % - 100%	KE-33509

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 : 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.

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 : Consult a physician after significant exposure. If unconscious,

place in recovery position and seek medical advice.

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.

SECTION 5: Firefighting measures

Flash point : 13°C (55°F)

Method: Tag closed cup

Autoignition temperature : 215°C (419°F)

at 1,013.00 hPa

Method: EU Method A.15

Suitable extinguishing

media

: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.

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 : Wear self-contained breathing apparatus for firefighting if

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equipment for fire-fighters 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. For safety reasons in case

of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed

containers.

Fire and explosion

protection

Do not spray on a naked flame or any incandescent material.

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot

surfaces and sources of ignition.

Hazardous decomposition

products

: Carbon oxides. Sulfur oxides.

SECTION 6: Accidental release measures

Personal precautions : Use personal protective equipment. Ensure adequate

ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low

areas.

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 : Contain spillage, and then collect with non-combustible

absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

Additional advice : No conditions to be specially mentioned.

SECTION 7: Handling and storage

Handling

Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid

contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with

local and national regulations.

Advice on protection against fire and explosion

Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge

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(which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Secure storage

Requirements for storage areas and containers

No smoking. 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

Chemical exposure standards, biological exposure standards, etc.

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:. Air-Purifying Respirator for Organic Vapors. 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.

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

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concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate:. Flame retardant antistatic protective clothing. Workers should wear antistatic

footwear.

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

Physical state : liquid
Color : Colorless
Odor : Pungent
pH : Not applicable

Pour point : No data available

Boiling point/boiling range : 119°C (246°F)

Flash point : 13°C (55°F)

Method: Tag closed cup

Evaporation rate : No data available

Lower explosion limit : 1.1 %(V)

Upper explosion limit : 12.3 %(V)

Vapor pressure : 5.51 kPa

at 38°C (100°F)

Solubility : 5.8 g/l

at 20°C (68°F)

: Pow: 1.8

Method: OECD Test Guideline 105

Density : 1 g/cm3

Vapor density : No data available

Partition coefficient: n-

octanol/water at 20°C (68°F)

Autoignition temperature : 215°C (419°F) at 1,013.00 hPa

Method: EU Method A.15

Viscosity, kinematic : No data available

Molecular weight : 88.1 g/mol

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Viscosity, dynamic : 1.6 mPa.s

at 20°C (68°F)

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 polymerization does not

occur.

Hazardous reactions: Vapors may form explosive mixture with

air.

Conditions to avoid : Heat, flames and sparks.

Materials to avoid : May react with oxygen and strong oxidizing agents, such as

chlorates, nitrates, peroxides, etc.

Hazardous decomposition

products

: Carbon oxides Sulfur oxides

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

SECTION 11: Toxicological information

Information on exposure routes

Acute oral toxicity

Tetrahydrothiophene : LD50: 1,850 mg/kg

Species: Rat

Sex: male and female

Method: OECD Test Guideline 401

Acute inhalation toxicity

Tetrahydrothiophene : LC50: 22.6 mg/l

Exposure time: 4 h Species: Rat

Sex: male and female

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Test atmosphere: vapor

Method: OECD Test Guideline 403

Skin corrosion or irritation

Tetrahydrothiophene : Skin irritation

Secure storage

Tetrahydrothiophene : Eye irritation

Sensitization

Tetrahydrothiophene : Did not cause sensitization on laboratory animals.

Information given is based on data obtained from similar

substances. negative

Scentinel® T Gas Odorant Skin sensitization

Repeated dose toxicity

Tetrahydrothiophene : Species: Rat, Male and female

Sex: Male and female Application Route: Inhalation Dose: 0, 51, 236, 1442 ppm Exposure time: 13 wk

Number of exposures: 6 h/d, 5 d/wk

NOEL: 51 ppm

Method: OECD Guideline 413

Target Organs: Upper respiratory tract

Germ cell mutagenicity (in vitro)

Tetrahydrothiophene : Test Type: Ames test

Method: Mutagenicity (Escherichia coli - reverse mutation

assay)

Result: negative

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Test Type: Cytogenetic assay

Result: negative

Test Type: HGPRT assay

Result: negative

Test Type: Sister Chromatid Exchange Assay

Method: OECD Guideline 473

Result: negative

Test Type: Unscheduled DNA synthesis assay

Result: negative

Developmental Toxicity

Tetrahydrothiophene : Species: Rat

Application Route: Inhalation Dose: 234, 782, 1910 ppm Method: OECD Guideline 414 NOAEL Teratogenicity: 1910 ppm NOAEL Maternal: 234 ppm No adverse effects expected

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.

Scentinel® T Gas Odorant Aspiration toxicity

: May be harmful if swallowed and enters airways.

CMR effects

Tetrahydrothiophene : 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: Animal testing did not show any effects

on fertility.

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Further information : Solvents may degrease the skin.

SECTION 12: Ecological information

Ecological Toxicity

Toxicity to fish

Tetrahydrothiophene : LC50: > 24 mg/l

Exposure time: 96 h

Species: Danio rerio (Zebra Fish) Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates

Tetrahydrothiophene : EC50: 24 mg/l

Exposure time: 48 h

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202

Toxicity to algae

Tetrahydrothiophene : EC50: > 153.2 mg/l

Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (green algae)

Method: OECD Test Guideline 201

Toxicity to bacteria

Tetrahydrothiophene : EC50: 1,530 mg/l

Exposure time: 3 h
Respiration inhibition

Method: OECD Test Guideline 209

Persistence and degradability

Tetrahydrothiophene : aerobic

Result: Not readily biodegradable.

< 10 %

Testing period: 28 d

Method: Directive 67/548/EEC Annex V, C.4.E.

Bioaccumulative

Tetrahydrothiophene : No bioaccumulation is to be expected (log Pow <= 4).

Mobility

Tetrahydrothiophene : The product will be dispersed amongst the various

environmental compartments (soil/ water/ air).

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Results of PBT assessment

Tetrahydrothiophene : Non-classified PBT substance, Non-classified vPvB substance

Other adverse effects : Harmful to aquatic life with long lasting effects.

Ecotoxicology Assessment

Short-term (acute) aquatic hazard

Tetrahydrothiophene : Harmful to aquatic life.

Long-term (chronic) aquatic hazard

Tetrahydrothiophene : Harmful 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. Do not burn, or use a cutting

torch on, the empty drum.

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	:	UN2412
UN Product Shipping Name	:	Tetrahydrothiophene
Hazard Class	:	3

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	FF 1 T	DΑ	1 🖰	. 21	ГΕ

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Packing Group	:	II - Hazardous Properties
Marine Pollutant	:	Not applicable
Special Safety Measures on Mode of Transport	:	No data available

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)

UN2412, TETRAHYDROTHIOPHENE, 3, II

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

UN2412, TETRAHYDROTHIOPHENE, 3, II, (13°C)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

UN2412, TETRAHYDROTHIOPHENE, 3, II

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

UN2412, TETRAHYDROTHIOPHENE, 3, II, (D/E)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

UN2412, TETRAHYDROTHIOPHENE, 3, II

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)

UN2412, TETRAHYDROTHIOPHENE, 3, II

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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	:	Not applicable	
Prohibited Chemicals	:	Not applicable	
Restricted Chemicals	:	Not applicable	
Toxic Release Inventory	:	Not applicable	

Dangerous Substances Safety Management Act

Dangerous Substances : Flammable liquids, Type 1 petroleums, Water insoluble liquid

Safety Management Act

Regulations by the Waste :

Management Act Not applicable

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) : On or in compliance with the active portion of the

TSCA TSCA inventory

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.

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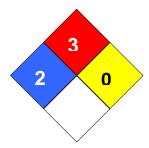
Philippines PICCS : On the inventory, or in compliance with the inventory Taiwan TCSI : On the inventory, or in compliance with the inventory China IECSC : On the inventory, or in compliance with the inventory

SECTION 16: Other information

Source of data	:	Korea. GHS based classification
Date of initial writing	:	2022-08-23
Revision number	:	1
Last revision date	:	2022-12-22

NFPA Classification : Health Hazard: 2

Fire Hazard: 3 Reactivity Hazard: 0



Other information

None.

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	LD50	Lethal Dose 50%			
	Government Industrial Hygienists					
AIIC	Australian Inventory of Industrial	LOAEL	Lowest Observed Adverse Effect			
	Chemicals		Level			
DSL	Canada, Domestic Substances	NFPA	National Fire Protection Agency			
	List					
NDSL	Canada, Non-Domestic	NIOSH	National Institute for Occupational			
	Substances List		Safety & Health			

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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