SAFETY DATA SHEET

SCENTINEL® S-20 Gas Odorant
Version 2.1
Revision Date 2018-05-31

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

Product information
Product Name: SCENTINEL® S-20 Gas Odorant
Material: 1096889, 1098465, 1024714, 1024715, 1024716, 1024722, 1024719, 1024718, 1024717, 1024713, 1024721, 1033064, 1024720

EC-No. Registration number

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Legal Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-Butyl Mercaptan</td>
<td>75-66-1</td>
<td>200-890-2</td>
<td>Chevron Phillips Chemicals International NV</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>01-2119491288-26-0000</td>
</tr>
</tbody>
</table>

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

Local: Chevron Phillips Chemicals International N.V.
Airport Plaza (Stockholm Building)
Leonardo Da Vinci laan 19
1831 Diegem
Belgium

SDS Requests: (800) 852-5530
Technical Information: (832) 813-4862
Responsible Party: Product Safety Group
Email: sds@cpchem.com

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

SDS Number: 100000013388
SAFETY DATA SHEET
SCENTINEL® S-20 Gas Odorant
Version 2.1
Revision Date 2018-05-31

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

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:

• 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

Classification of the substance or mixture
REGULATION (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
<th>Label Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids</td>
<td>2</td>
<td>H225:</td>
<td>Highly flammable liquid and vapor.</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>2</td>
<td>H319:</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>1</td>
<td>H317:</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
<td>2</td>
<td>H411:</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

Label elements
Labeling (REGULATION (EC) No 1272/2008)

SDS Number:100000013388  2/15
Hazard pictograms: 

Signal Word: Danger

Hazard Statements:
- H225: Highly flammable liquid and vapor.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H411: Toxic 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.
  - P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
  - P273: Avoid release to the environment.

- Response:
  - 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.

Hazardous ingredients which must be listed on the label:
- 75-66-1: t-Butyl Mercaptan

SECTION 3: Composition/information on ingredients

Synonyms:
- Gas Odorant
- Mixture of t-butyl mercaptan and methy ethyl sulfide
- Mercaptan Mixture

Molecular formula: Mixture

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. EC-No. Index No.</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [wt%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-Butyl Mercaptan</td>
<td>75-66-1 200-890-2</td>
<td>Flam. Liq. 2; H225; Aquatic Acute 2; H401; Skin Sens. 1; H317; Aquatic Chronic 2; H411</td>
<td>76 - 80</td>
</tr>
<tr>
<td>Methyl Ethyl Sulfide</td>
<td>624-89-5 210-868-4</td>
<td>Flam. Liq. 2; H225; Eye Irrit. 2; H319; Aquatic Chronic 3; H412</td>
<td>20 - 24</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.
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. 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: < -18 °C (< 0 °F) estimated

Autoignition temperature: No data available

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

Unsuitable extinguishing media: High volume water jet.

Specific hazards during firefighting: 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. 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 an open flame or any other 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).

SECTION 7: Handling and storage

Handling

Advice on safe handling: Avoid formation of aerosol. 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. 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. 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: Do not spray on an open flame or any other 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.

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

Chevron Phillips Chemical Company LP

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-Butyl Mercaptan</td>
<td>Manufacturer</td>
<td>TWA</td>
<td>0.5 ppm.</td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures

SDS Number: 100000013388
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 workplace 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 Organic Vapors. 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.

**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.

**SECTION 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

**Appearance**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Clear</td>
</tr>
<tr>
<td>Odor</td>
<td>Repulsive</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Safety data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>&lt; -18 °C (&lt; 0 °F) estimated</td>
</tr>
</tbody>
</table>
SCENTINEL® S-20 Gas Odorant

Version 2.1

Revision Date 2018-05-31

Lower explosion limit : Not applicable
Upper explosion limit : Not applicable
Oxidizing properties : No

Autoignition temperature : No data available
Thermal decomposition : No data available

Molecular formula : Mixture
Molecular weight : Not applicable
pH : Not applicable
Pour point : <-54 °C (< -65 °F)

Boiling point/boiling range : 63 - 68 °C (145 - 154 °F)
Vapor pressure : 5.70 PSI
 at 38 °C (100 °F)
Relative density : 0.82
 at 16 °C (61 °F)

Water solubility : slightly soluble
Partition coefficient: n-octanol/water : No data available
Viscosity, dynamic : 0.5 cP
 at 16 °C (60 °F)
Relative vapor density : 3
 (Air = 1.0)
Evaporation rate : 1
Percent volatile : > 99 %

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.

Possibility of hazardous reactions
Conditions to avoid : Heat, flames and sparks.
Thermal decomposition : No data available
Hazardous decomposition products: Carbon oxides, Sulfur oxides

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

SECTION 11: Toxicological information

**Acute oral toxicity**

- **t-Butyl Mercaptan**
  - LD50: 4.729 mg/kg
  - Species: Rat
  - Sex: male

- **Methyl Ethyl Sulfide**
  - LD50: > 5.000 mg/kg
  - Species: Rat
  - Method: OECD Test Guideline 401

**Acute inhalation toxicity**

- **t-Butyl Mercaptan**
  - LC50: 98.3 mg/l
    - Exposure time: 4 h
    - Species: Rat
    - Sex: male and female
    - Test atmosphere: vapor
    - Method: OECD Test Guideline 403
    - LC50: 81.9 mg/l
    - Exposure time: 4 h
    - Species: Rat
    - Sex: male
    - Test atmosphere: vapor
    - Method: OECD Test Guideline 403
    - LC50: 60.9 mg/l
    - Exposure time: 4 h
    - Species: Mouse
    - Sex: male
    - Test atmosphere: vapor
    - Method: OECD Test Guideline 403

- **Methyl Ethyl Sulfide**
  - LC50: > 21.7 mg/l
    - Species: Rat
    - Test atmosphere: vapor
    - Method: OECD Test Guideline 403

**SCENTINEL® S-20 Gas Odorant**

- **Skin irritation**: May cause skin irritation and/or dermatitis.

- **Eye irritation**: May cause irreversible eye damage.

- **Sensitization**: Causes sensitization.

**Repeated dose toxicity**
### Reproductive toxicity

| t-Butyl Mercaptan | Species: Rat, Male and female  
|                  | Sex: Male and female  
|                  | Application Route: Inhalation  
|                  | Dose: 9, 97, 196 ppm  
|                  | Exposure time: 13 wks  
|                  | Number of exposures: 6 hrs/d, 5 d/wk  
|                  | NOEL: > 196 ppm  
| Species: Rat, Male and female  
| Sex: Male and female  
| Application Route: oral gavage  
| Dose: 10, 50, 200 mg/kg bw/day  
| Exposure time: 42-53 days  
| Number of exposures: Daily  
| NOEL: 50 mg/kg bw/day  
| Lowest observable effect level: 200 mg/kg bw/day  
| Method: OECD Guideline 422  

### Developmental Toxicity

| t-Butyl Mercaptan | Species: Mouse  
|                  | Application Route: Inhalation  
|                  | Dose: 11, 99, 195 ppm  
|                  | Exposure time: GD 6-16  
|                  | Number of exposures: 6 hrs/d  
|                  | NOAEL Teratogenicity: > = 195 ppm  
|                  | NOAEL Maternal: > = 195 ppm  

Information given is based on data obtained from similar substances.
SCENTINEL® S-20 Gas Odorant

Species: Rat
Application Route: Inhalation
Dose: 11, 99, 195 ppm
Exposure time: GD6-19
Number of exposures: 6 hrs/d
NOAEL Teratogenicity: >=195 ppm
NOAEL Maternal: >= 195 ppm

Species: Rat
Application Route: oral gavage
Dose: 10, 50, 200 mg/kg bw/day
Exposure time: 42-53 days
Number of exposures: Daily
NOAEL Teratogenicity: 50 mg/kg bw/day
NOAEL Maternal: 200 mg/kg bw/day

SCENTINEL® S-20 Gas Odorant
Aspiration toxicity: May be harmful if swallowed and enters airways.

CMR effects
t-Butyl Mercaptan: Carcinogenicity: Not available
Mutagenicity: Did not show mutagenic effects in animal experiments.
Teratogenicity: Did not show teratogenic effects in animal experiments.
Reproductive toxicity: No toxicity to reproduction

SCENTINEL® S-20 Gas Odorant
Further information: Solvents may degrease the skin.

SECTION 12: Ecological information

Toxicity to fish
t-Butyl Mercaptan: LC50: 34 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
semi-static test Method: OECD Test Guideline 203

Methyl Ethyl Sulfide: LC50: > 49,8 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates
t-Butyl Mercaptan: EC50: 6,7 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
static test Method: OECD Test Guideline 202

Methyl Ethyl Sulfide: EC50: 16 mg/l
Exposure time: 48 h
Species: Daphnia
Method: OECD Test Guideline 202

SDS Number:100000013388 10/15
Toxicity to algae

- **t-Butyl Mercaptan**: EC50: 24 mg/l
  Exposure time: 72 h
  Species: Pseudokirchneriella subcapitata (green algae)
  Method: OECD Test Guideline 201

- **Methyl Ethyl Sulfide**: ErC50: > 500 mg/l
  Exposure time: 72 h
  Species: Pseudokirchneriella subcapitata (green algae)
  Method: OECD Test Guideline 201
  EbC50: 310 mg/l
  Exposure time: 72 h
  Species: Pseudokirchneriella subcapitata (green algae)
  Method: OECD Test Guideline 201

Toxicity to bacteria

- **Methyl Ethyl Sulfide**: EC50: > 1,000 mg/l
  Exposure time: 3 h
  Species: Bacteria
  Respiration inhibition
  Method: OECD Test Guideline 209

Elimination information (persistence and degradability)

Bioaccumulation

- **t-Butyl Mercaptan**: Bioconcentration factor (BCF): 12
  Bioaccumulation is unlikely.

- **Methyl Ethyl Sulfide**: Accumulation in aquatic organisms is unlikely.

Biodegradability

- This material is not expected to be readily biodegradable.

Ecotoxicology Assessment

Acute aquatic toxicity

- **t-Butyl Mercaptan**: Toxic to aquatic life.
- **Methyl Ethyl Sulfide**: Harmful to aquatic life.

Chronic aquatic toxicity

- **t-Butyl Mercaptan**: Toxic to aquatic life with long lasting effects.
- **Methyl Ethyl Sulfide**: Harmful to aquatic life with long lasting effects.

Results of PBT assessment

- **t-Butyl Mercaptan**: Non-classified PBT substance, Non-classified vPvB substance

Additional ecological information

- An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with
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. 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.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)
UN3336, MERCAPTANS, LIQUID, FLAMMABLE, N.O.S., (TERTIARY BUTYL MERCAPTAN, METHYL ETHYL SULFIDE), 3, II

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
UN3336, MERCAPTANS, LIQUID, FLAMMABLE, N.O.S., (TERTIARY BUTYL MERCAPTAN, METHYL ETHYL SULFIDE), 3, II, (< -18 °C), MARINE POLLUTANT, (TERTIARY BUTYL MERCAPTAN, TERTIARY BUTYL MERCAPTAN)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
UN3336, MERCAPTANS, LIQUID, FLAMMABLE, N.O.S., (TERTIARY BUTYL MERCAPTAN, METHYL ETHYL SULFIDE), 3, II

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
UN3336, MERCAPTANS, LIQUID, FLAMMABLE, N.O.S., (TERTIARY BUTYL MERCAPTAN, METHYL ETHYL SULFIDE), 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS, (TERTIARY BUTYL MERCAPTAN)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
UN3336, MERCAPTANS, LIQUID, FLAMMABLE, N.O.S., (TERTIARY BUTYL MERCAPTAN, METHYL ETHYL SULFIDE), 3, II, ENVIRONMENTALLY HAZARDOUS, (TERTIARY BUTYL MERCAPTAN)

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
UN3336, MERCAPTANS, LIQUID, FLAMMABLE, N.O.S., (TERTIARY BUTYL MERCAPTAN, METHYL ETHYL SULFIDE), 3, II, ENVIRONMENTALLY HAZARDOUS, (TERTIARY BUTYL MERCAPTAN)

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

SECTION 15: Regulatory information

National legislation
Chemical Safety Assessment
Ingredients : 2-methylpropane-2-thiol
A Chemical Safety Assessment has been carried out for this substance.

Major Accident Hazard Legislation
: 96/82/EC Update: 2003
Highly flammable
7b
Quantity 1: 5.000 t
Quantity 2: 50.000 t

: 96/82/EC Update: 2003
Dangerous for the environment
9b
Quantity 1: 200 t
Quantity 2: 500 t

Water contaminating class (Germany)
: WGK 3 highly water endangering

Notification status
Europe REACH : A substance or substances in this product is not registered or notified to be registered. Importation or manufacture of this product is still permitted provided that it does not exceed the REACH minimum threshold quantity of the non-regulated substances.

United States of America (USA) TSCA : On the inventory, or in compliance with the inventory

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 : On the inventory, or in compliance with the inventory

Philippines PICCS : On the inventory, or in compliance with the inventory

China IECSC : On the inventory, or in compliance with the inventory
SECTION 16: Other information

NFPA Classification

Health Hazard: 2
Fire Hazard: 3
Reactivity Hazard: 0

Further information

Legacy SDS Number: 34330

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

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
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<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
</tbody>
</table>

SDS Number: 100000013388
### SAFETY DATA SHEET

**SCENTINEL® S-20 Gas Odorant**

Version 2.1  
Revision Date 2018-05-31

<table>
<thead>
<tr>
<th>ENCS</th>
<th>Japan, Inventory of Existing and New Chemical Substances</th>
<th>TSCA</th>
<th>Toxic Substance Control Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Full text of H-Statements referred to under sections 2 and 3.**

- **H225**  
  Highly flammable liquid and vapor.

- **H317**  
  May cause an allergic skin reaction.

- **H319**  
  Causes serious eye irritation.

- **H401**  
  Toxic to aquatic life.

- **H411**  
  Toxic to aquatic life with long lasting effects.

- **H412**  
  Harmful to aquatic life with long lasting effects.