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

Product information
Product Name: SCENTINEL® N Gas Odorant
Material: 1120698, 1120697, 1120696, 1119303, 1116175, 1099837, 1027464, 1024680, 1024681, 1024683, 1027463, 1024682

EC-No. Registration number

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Legal Entity Registration number</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 N.V. 01-2119491288-26-0000</td>
</tr>
<tr>
<td>Isopropyl Mercaptan</td>
<td>75-33-2</td>
<td>200-861-4</td>
<td>Chevron Phillips Chemicals International N.V Pre-Registered</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 Vincielaan 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)
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

Flammable liquids, Category 2 H225: Highly flammable liquid and vapor.
Skin sensitization, Category 1 H317: May cause an allergic skin reaction.
Acute aquatic toxicity, Category 1 H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 1 H410: Very toxic to aquatic life with long lasting effects.

Label elements

Labeling (REGULATION (EC) No 1272/2008)

SDS Number: 100000014161 2/17
SAFETY DATA SHEET

SCENTINEL® N Gas Odorant

Version 2.0

Revision Date 2018-04-19

Hazard pictograms:

![Flammability, Poisoning, Reactivity]

Signal Word: Danger

Hazard Statements:
- H225: Highly flammable liquid and vapor.
- H317: May cause an allergic skin reaction.
- H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

**Prevention:**
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233: Keep container tightly closed.
- P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/eye protection/face protection.

**Response:**
- 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
- 75-33-2: Isopropyl Mercaptan
- 107-03-9: n-Propyl Mercaptan
- 513-53-1: sec-Butyl Mercaptan

SECTION 3: Composition/information on ingredients

**Synonyms:**
- Scentinel® N-4 Gas Odorant
- Mercaptan Mixture
- Gas Odorant

**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>75 - 80</td>
</tr>
<tr>
<td>Isopropyl Mercaptan</td>
<td>75-33-2 200-861-4</td>
<td>Flam. Liq. 2; H225 Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410</td>
<td>13 - 25</td>
</tr>
</tbody>
</table>
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 on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed : 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.
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

#### Ingredients with workplace control parameters

**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>TWA</td>
<td>0.5 ppm, 1.5 mg/m3</td>
<td></td>
<td>normal,</td>
</tr>
<tr>
<td>sec-Butyl Mercaptan</td>
<td>VME</td>
<td>0.5 ppm, 1.5 mg/m3</td>
<td></td>
<td>normal,</td>
</tr>
</tbody>
</table>

**FR**

<table>
<thead>
<tr>
<th>Composants</th>
<th>Base</th>
<th>Valeur</th>
<th>Paramètres de contrôle</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-Butyl Mercaptan</td>
<td>VLE</td>
<td>VME</td>
<td>0.5 ppm, 1.5 mg/m3</td>
<td>normal,</td>
</tr>
<tr>
<td>sec-Butyl Mercaptan</td>
<td>VLE</td>
<td>VME</td>
<td>0.5 ppm, 1.5 mg/m3</td>
<td>normal,</td>
</tr>
</tbody>
</table>

**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: Full-Face Air-Purifying Respirator for Organic Vapors, Dusts and Mists. 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

SDS Number: 100000014161
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**
- Form : Liquid
- Physical state : Liquid
- Color : Clear
- Odor : Repulsive

**Safety data**
- Flash point : \(-18 °C (0 °F)\) estimated
- Lower explosion limit : No data available
- Upper explosion limit : No data available
- Oxidizing properties : No
- Autoignition temperature : No data available
- Molecular formula : Mixture
- Molecular weight : Not applicable
- pH : Not applicable
- Freezing point : No data available
- Pour point : No data available
- Boiling point/boiling range : 58,3 - 70 °C (136,9 - 158 °F)
- Vapor pressure : 6,80 PSI at 38 °C (100 °F)
- Relative density : 0,81 at 15,6 °C (60,1 °F), estimated
- Density : 810,1 g/l
- Water solubility : Slightly soluble
- Partition coefficient: n-octanol/water : No data available
- Viscosity, kinematic : No data available
Relative vapor density : 1  
(Air = 1.0)

Evaporation rate : > 1  
(N-Butyl Acetate = 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.

Hazardous decomposition products : Carbon oxides  
Sulfur oxides

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

SECTION 11: Toxicological information

SCENTINEL® N Gas Odorant  
Acute oral toxicity : Acute toxicity estimate: 3.344 mg/kg  
Method: Calculation method

SCENTINEL® N Gas Odorant  
Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l  
Test atmosphere: vapor  
Method: Calculation method

SCENTINEL® N Gas Odorant  
Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

SCENTINEL® N Gas Odorant  
Skin irritation : May cause skin irritation and/or dermatitis.

SCENTINEL® N Gas Odorant  
Eye irritation : Vapors may cause irritation to the eyes, respiratory system 
and the skin.

SCENTINEL® N Gas Odorant  
Sensitization : Causes sensitization.

Repeated dose 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

Species: Rat, Male and female  
Sex: Male and female  
Application Route: Inhalation  
Dose: 25.1, 99.6, 403.4 ppm  
Exposure time: 13 wks  
Number of exposures: 6 hrs/d, 5 d/wk  
NOEL: 99.6 ppm  
Lowest observable effect level: 403.4 ppm  
Method: OECD Guideline 413  
Target Organs: Liver, Kidney, Blood, Upper respiratory tract

Information given is based on data obtained from similar substances.

sec-butyl Mercaptan  
Species: Rat, male and female  
Sex: male and female  
Application Route: Inhalation  
Exposure time: 13 wks  
Number of exposures: 6 hrs/d, 5 d/wk  
NOEL: 0.367 mg/l 99.6 ppm  
Lowest observable effect level: 1,488 mg/l 403.4 ppm  
Method: OECD Guideline 413  
Target Organs: Blood, Liver, Kidney, Upper respiratory tract

Reproductive toxicity

t-Butyl Mercaptan  
Species: Rat  
Sex: male and female  
Application Route: oral gavage  
Dose: 10, 50, 200 mg/kg bw/day  
Number of exposures: Daily  
Test period: 42-53 days  
Method: OECD Guideline 422  
NOAEL Parent: 200 mg/kg bw/day  
NOAEL F1: 50 mg/kg bw/day

No adverse effects expected

sec-butyl Mercaptan  
Species: Rat  
Sex: male and female  
Application Route: oral gavage  
Dose: 10, 50, 200 mg/kg bw/d  
Number of exposures: Daily  
Test period: 42-50 days
**Developmental Toxicity**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Species</th>
<th>Application Route</th>
<th>Dose</th>
<th>Exposure time</th>
<th>Number of exposures</th>
<th>NOAEL Teratogenicity</th>
<th>NOAEL Maternal</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-Butyl Mercaptan</td>
<td>Mouse</td>
<td>Inhalation</td>
<td>11, 99, 195 ppm</td>
<td>GD 6-16</td>
<td>6 hrs/d</td>
<td>&gt; 195 ppm</td>
<td>&gt; 195 ppm</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>Inhalation</td>
<td>11, 99, 195 ppm</td>
<td>GD6-19</td>
<td>6 hrs/d</td>
<td>&gt; 195 ppm</td>
<td>&gt; 195 ppm</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>oral gavage</td>
<td>10, 50, 200 mg/kg bw/day</td>
<td>42-53 days</td>
<td>Daily</td>
<td>50 mg/kg bw/day</td>
<td>200 mg/kg bw/day</td>
</tr>
</tbody>
</table>

**SCENTINEL® N Gas Odorant**

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

**CMR effects**

SDS Number: 100000014161
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® N Gas Odorant**

**Further information**

Solvents may degrease the skin. High concentration of vapors may cause irritation to eyes and respiratory system and produce narcotic effects.

### 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

**Isopropyl Mercaptan**

- LC50: 34 mg/l
  - Exposure time: 96 h
  - Semi-static test Analytical monitoring: yes
  - Method: OECD Test Guideline 203
  - Information given is based on data obtained from similar substances.

**n-Propyl Mercaptan**

- LC50: 1.3 mg/l
  - Exposure time: 96 h
  - Species: Pimephales promelas (fathead minnow)
  - Analytical monitoring: yes
  - Test substance: yes
  - Method: OECD Test Guideline 203
  - Toxic to aquatic organisms.

**sec-butyl Mercaptan**

- LC50: 8.5 mg/l
  - Exposure time: 96 h
  - Species: Oncorhynchus mykiss (rainbow trout)
  - Static test Analytical monitoring: yes
  - 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

**Isopropyl Mercaptan**

- EC50: 0.25 – 0.5 mg/l
  - Exposure time: 48 h
  - Species: Daphnia magna (Water flea)
  - Static test Test substance: yes
  - Method: OECD Test Guideline 202

**n-Propyl Mercaptan**

- EC50: 0.07 mg/l
  - Exposure time: 48 h
Species: Daphnia magna (Water flea)
Analytical monitoring: yes
Test substance: yes
Method: OECD Test Guideline 202
Very toxic to aquatic organisms.

sec-butyl Mercaptan
0.56 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Immobilization Method: OECD Test Guideline 202
Information refers to the main ingredient.

Toxicity to algae

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

Isopropyl Mercaptan
ErC50: 21.9 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
static test Method: OECD Test Guideline 201

sec-butyl Mercaptan
EC50: 3.4 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Growth inhibition Method: OECD Test Guideline 201

M-Factor
propane-2-thiol
: M-Factor (Acute Aquat. Tox.) 1
M-Factor (Chron. Aquat. Tox.) 1

M-Factor
propane-1-thiol
M-Factor (Acute Aquat. Tox.) 10

M-Factor
butane-2-thiol
M-Factor (Acute Aquat. Tox.) 1
M-Factor (Chron. Aquat. Tox.) 1

Bioaccumulation

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

Biodegradability

t-Butyl Mercaptan
: aerobic
Result: Not readily biodegradable.
6 %
Testing period: 63 d
Method: OECD Test Guideline 301

Isopropyl Mercaptan: aerobic
Result: Not readily biodegradable.
0 %
Testing period: 28 Days
Test substance: yes
Method: OECD Test Guideline 301D

n-Propyl Mercaptan: aerobic
Result: Not readily biodegradable.
17 %
Testing period: 28 Days
Method: OECD Test Guideline 301D

sec-butyl Mercaptan: aerobic
Result: Not readily biodegradable.
6 %
Testing period: 63 d
Method: OECD Test Guideline 301F
Information given is based on data obtained from similar substances.

Ecotoxicology Assessment

Acute aquatic toxicity

t-Butyl Mercaptan: Toxic to aquatic life.
Isopropyl Mercaptan: Very toxic to aquatic life.
n-Propyl Mercaptan: Very toxic to aquatic life.
sec-butyl Mercaptan: Very toxic to aquatic life.

Chronic aquatic toxicity

t-Butyl Mercaptan: Toxic to aquatic life with long lasting effects.
Isopropyl Mercaptan: Very toxic to aquatic life with long lasting effects.
n-Propyl Mercaptan: Very toxic to aquatic life with long lasting effects.
sec-butyl Mercaptan: Very toxic to aquatic life with long lasting effects.

Results of PBT assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Additional ecological information: Very toxic to aquatic life., 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.

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, ISOPROPYL MERCAPTAN), 3, II

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

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

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

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

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

SCENTINEL® N Gas Odorant

Version 2.0 Revision Date 2018-04-19

UN3336, MERCAPTANS, LIQUID, FLAMMABLE, N.O.S., (TERTIARY BUTYL MERCAPTAN, ISOPROPYL MERCAPTAN), 3, II, ENVIRONMENTALLY HAZARDOUS, (N-PROPYL MERCAPTAN, ISOPROPYL MERCAPTAN)

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

SECTION 15: Regulatory information

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

: 96/82/EC Update:
Dangerous for the environment
9a Quantity 1: 100 t
Quantity 2: 200 t

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

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

SDS Number:100000014161  15/17
Further information

Legacy SDS Number : 99720

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.

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<th>Key or legend to abbreviations and acronyms used in the safety data sheet</th>
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SCENTINEL® N Gas Odorant

Version 2.0

SAFETY DATA SHEET

H225 Highly flammable liquid and vapor.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H401 Toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.