SAFETY DATA SHEET

Propylene (Polymer Grade, Unodorized)
Version 2.5


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

1.1

Product information

Product Name: Propylene (Polymer Grade, Unodorized)
Material: 1103433, 1102933, 1021731, 1015413, 1026827, 1029232

EC-No. Registration number

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Legal Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td>Chevron Phillips Chemical Company LP</td>
</tr>
<tr>
<td></td>
<td>204-062-1</td>
<td>01-2119447103-50-0019</td>
</tr>
<tr>
<td></td>
<td>601-011-00-9</td>
<td></td>
</tr>
</tbody>
</table>

1.2

Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified Uses: Manufacture
Use as an intermediate
Formulation
Use in polymer production – industrial
Use as a fuel - industrial
Use as a fuel – professional
Use as a fuel – consumer
Use as a propellant – industrial
Use as a propellant – professional
Use as a propellant – consumer

1.3

Details of the supplier of the safety data sheet

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

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

SDS Number: 100000010916
SECTION 2: Hazards identification

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

Flammable gases, Category 1
H220:
Extremely flammable gas.

Gases under pressure, Liquefied gas
H280:
Contains gas under pressure; may explode if heated.

2.2 Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms

Signal Word : Danger

Hazard Statements : H220
Extremely flammable gas.
H280
Contains gas under pressure; may explode if heated.

Precautionary Statements : Prevention:
P210
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response:
P377
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381
In case of leakage, eliminate all ignition sources.
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Storage:
P410 + P403  Protect from sunlight. Store in a well-ventilated place.

SECTION 3: Composition/information on ingredients

3.1 - 3.2
Substance or Mixture
Synonyms : Propylene
Molecular formula : C3H6

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [wt%]</th>
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</thead>
<tbody>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td>204-062-1</td>
<td>Flam. Gas 1; H220 Press. Gas Liquefied gas; H280</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td>601-011-00-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>601-003-00-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1
Description of first-aid measures

General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.

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

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. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

SECTION 5: Firefighting measures

Flash point : -108 °C (-162 °F)

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Autoignition temperature : 460 °C (860 °F)

5.1 Extinguishing media

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

Unsuitable extinguishing media : High volume water jet.

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : 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.

6.2 Environmental precautions

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.

6.4 Reference to other sections

Reference to other sections : For personal protection see section 8. For disposal considerations see section 13.

A quantitative risk assessment is not required for the environment.
A quantitative risk assessment is not required for human health.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling
SAFETY DATA SHEET

Propylene (Polymer Grade, Unodorized)

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Advice on safe handling: 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. NORMS based Radon, a radioactive gas, may be present as a trace component in natural gas, natural gas liquids and petrochemicals derived from natural gas. Special precautions should be taken when entering or dismantling equipment in this type of service. Equipment should be checked externally while in service for gamma radiation above background levels. This equipment may contain internal surface deposits of radioactive radon decay products. Minimize unnecessary exposures to these radioactive deposits. Exposures can be reduced by allowing a 4 hour idle (no flow) period before entering or dismantling equipment. During this time the short lived decay products will decay. Longer lived radio nuclides (Pb-210, Bi-210 and Po-210) may be present. Avoid direct skin contact with deposits of radioactivity on surfaces. Avoid generation of dust, smoke or fumes in the work area or if they cannot be avoided, wear a tested and certified respirator for radioactive dusts. Smoking, eating and drinking should be prohibited when working with this equipment. Employees should wash thoroughly with soap and water and discard contaminated clothing after entering or handling equipment having radioactive deposits.

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.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements for storage areas and containers: Prevent unauthorized access. No smoking. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>SI</th>
<th>Sestavine</th>
<th>Osnova</th>
<th>Vrednost</th>
<th>Parametri nadzora</th>
<th>Pripomba</th>
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</thead>
<tbody>
<tr>
<td>Propane</td>
<td>SI OEL</td>
<td>MV</td>
<td>1,000 ppm, 1,600 mg/m³</td>
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<table>
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<tr>
<th>SE</th>
<th>Beståndsdelar</th>
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<th>Värde</th>
<th>Kontrollparametrar</th>
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<tr>
<td>Propylene</td>
<td>SE AFS</td>
<td>NGV</td>
<td>500 ppm, 900 mg/m³</td>
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## Propylene (Polymer Grade, Unodorized)

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**Revision Date 2018-09-27**

### RU

<table>
<thead>
<tr>
<th>Component</th>
<th>Base</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Note</th>
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</thead>
<tbody>
<tr>
<td>Propylene</td>
<td>RU OEL</td>
<td>ПДК</td>
<td>100 mg/m³</td>
<td>4, пары и/или газы</td>
</tr>
<tr>
<td>Propylene</td>
<td>RU OEL</td>
<td>ПДК разовая</td>
<td>300 mg/m³</td>
<td>4, пары и/или газы</td>
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<tr>
<td>Propylene</td>
<td>RU OEL</td>
<td>ПДК</td>
<td>300 mg/m³</td>
<td>4, пары и/или газы</td>
</tr>
<tr>
<td>Propylene</td>
<td>RU OEL</td>
<td>ПДК разовая</td>
<td>900 mg/m³</td>
<td>4, пары и/или газы</td>
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</table>

4 4 класс - умеренно опасные

### RO

<table>
<thead>
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<tbody>
<tr>
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<tr>
<td>Propane</td>
<td>RO OEL</td>
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### PT

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<th>Note</th>
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<tbody>
<tr>
<td>Propylene</td>
<td>PT OEL</td>
<td>VLE-МП</td>
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<td>A4. irritação do TRS, irritação do trato respiratório superior</td>
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### PL

<table>
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<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
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<td>PL NDS</td>
<td>NDS</td>
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</tr>
<tr>
<td>Propylene</td>
<td>PL NDS</td>
<td>NDS</td>
<td>6,600 mg/m³</td>
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<tr>
<td>Propane</td>
<td>PL NDS</td>
<td>NDS</td>
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</tbody>
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### NO

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<th>Control Parameters</th>
<th>Note</th>
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</thead>
<tbody>
<tr>
<td>Propane</td>
<td>FOR 2011-12-06-1358</td>
<td>TWA</td>
<td>500 ppm, 900 mg/m³</td>
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</table>

### MK

<table>
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<tr>
<th>Component</th>
<th>Base</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>MK OEL</td>
<td>MV</td>
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### LT

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<th>Value</th>
<th>Control Parameters</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>LT OEL</td>
<td>TWA</td>
<td>500 ppm, 900 mg/m³</td>
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</tr>
</tbody>
</table>

### IS

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<thead>
<tr>
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<th>Base</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>IS OEL</td>
<td>TWA</td>
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<td></td>
</tr>
</tbody>
</table>

### IE

<table>
<thead>
<tr>
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<th>Value</th>
<th>Control Parameters</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene</td>
<td>IE OEL</td>
<td>OELV - 8 hrs (TWA)</td>
<td>500 ppm</td>
<td>Asphx,</td>
</tr>
<tr>
<td>Propylene</td>
<td>IE OEL</td>
<td>OELV - 8 hrs (TWA)</td>
<td>1,000 ppm</td>
<td>Asphx,</td>
</tr>
</tbody>
</table>

Asphx Gaseous chemical substances which may not produce significant physiological effects in the exposed employee, but when present in high concentrations will act as simple asphyxiants

### HR

<table>
<thead>
<tr>
<th>Component</th>
<th>Base</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>HR OEL</td>
<td>GVI</td>
<td>100 ppm, 400 mg/m³</td>
<td>2, 2, T,</td>
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</table>

2 Karc. kat. 2: Ivani koje su vjerojatno karcinogene za ljude  
T Otrovnal

### GR

<table>
<thead>
<tr>
<th>Component</th>
<th>Base</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>GR OEL</td>
<td>TWA</td>
<td>1,000 ppm, 1,800 mg/m³</td>
<td></td>
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</tbody>
</table>

### FI

<table>
<thead>
<tr>
<th>Component</th>
<th>Base</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene</td>
<td>FI OEL</td>
<td>HTP-arvol 8h</td>
<td>500 ppm</td>
<td>Lite 4,</td>
</tr>
<tr>
<td>Propane</td>
<td>FI OEL</td>
<td>HTP-arvol 8h</td>
<td>800 ppm, 1,500 mg/m³</td>
<td>Lite 4,</td>
</tr>
<tr>
<td>Propane</td>
<td>FI OEL</td>
<td>HTP-arvol 15 min</td>
<td>1,100 ppm, 2,000 mg/m³</td>
<td>Lite 4,</td>
</tr>
</tbody>
</table>

 SDS Number:100000010916 6/17
**Exposure controls**

**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: 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. Safety glasses.

Skin and body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. Wear as appropriate: Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.

Hygiene measures: Wash hands before breaks and at the end of workday.

A quantitative risk assessment is not required for the environment.
A quantitative risk assessment is not required for human health.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Form: compressed liquefied gas
Physical state: Gaseous
Color: Colorless
Odor: Sweet

Safety data
Flash point: -108 °C (-162 °F)
Lower explosion limit: 2,4 %(V)
Upper explosion limit: 10,1 %(V)
Oxidizing properties: No
Autoignition temperature: 460 °C (860 °F)
Molecular formula: C3H6
Molecular weight: 42,09 g/mol
pH: No data available
Freezing point: -185 °C (-301 °F)
Boiling point/boiling range: -47,7 °C (-53,9 °F)
Vapor pressure: 238,50 PSI at 37,8 °C (100,0 °F) Method: Reid
Relative density: 0,52 at 15,6 °C (60,1 °F)
Water solubility: Soluble in hydrocarbon solvents; partially soluble in water.
Partition coefficient: n-octanol/water: No data available
Viscosity, kinematic: No data available
Relative vapor density: 1,5 (Air = 1,0)
Evaporation rate: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity: Stable under recommended storage conditions.

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

10.3 Possibility of hazardous reactions

Hazardous reactions: Hazardous polymerization does not occur.

Further information: No decomposition if stored and applied as directed.

Hazardous reactions: Vapors may form explosive mixture with air.

10.4 Conditions to avoid: Heat, flames and sparks.

10.5 Materials to avoid: May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

10.6 Hazardous decomposition products: Carbon oxides

Other data: No decomposition if stored and applied as directed.
SECTION 11: Toxicological information

11.1 

Information on toxicological effects

Propylene (Polymer Grade, Unodorized)

Acute oral toxicity : Negligible or unlikely exposure pathways

Acute inhalation toxicity

Propylene : LC50: > 86 mg/l
Exposure time: 4 h
Species: Rat
Test atmosphere: gas
Test substance: yes

Propane : LC50: > 800000 ppm
Exposure time: 15 min
Species: Rat
Test atmosphere: gas

Propylene (Polymer Grade, Unodorized)

Acute dermal toxicity : Negligible or unlikely exposure pathways

Propylene (Polymer Grade, Unodorized)

Skin irritation : No adverse effects expected.

Propylene (Polymer Grade, Unodorized)

Eye irritation : No adverse effects expected.

Propylene (Polymer Grade, Unodorized)

Sensitization : This information is not available.

Repeated dose toxicity

Propylene : Species: Rat, Male and female
Sex: Male and female
Application Route: Inhalation
Dose: 625,1250,2500,5000, 10000 ppm
Exposure time: 14 wk
Number of exposures: 6 Hr/d, 5 d/wk
NOEL: 10000 ppm
Species: Mouse, Male and female  
Sex: Male and female  
Application Route: Inhalation  
Dose: 625, 1250, 2500, 5000, 10000 ppm  
Exposure time: 14 wk  
Number of exposures: 6 Hr/d, 5 d/wk  
NOEL: 10000 ppm

Species: Rat, Male and female  
Sex: Male and female  
Application Route: Inhalation  
Dose: 0, 5000, 10000 ppm  
Exposure time: 103 wk  
Number of exposures: 6 Hr/d, 5 d/wk  
Lowest observable effect level: 5000 ppm  
Not classified due to data which are conclusive although insufficient for classification.

Propane  
Species: Monkey  
Application Route: Inhalation  
Dose: 0, 750 ppm  
Exposure time: 90 day  
Number of exposures: daily  
NOEL: > 750 ppm

**Genotoxicity in vitro**

**Propylene**  
Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

Test Type: Mammalian cell gene mutation assay  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: Ambiguous

**Propane**  
Test Type: Ames test  
Result: negative

**Genotoxicity in vivo**

**Propylene**  
Test Type: Micronucleus test  
Species: Rat  
Route of Application: inhalation (gas)  
Method: OECD Test Guideline 474  
Result: negative
Carcinogenicity

Propylene:
Species: Rat
Dose: 0, 5000, 10000 ppm
Exposure time: 103 wks
Number of exposures: 6 h/d, 5 d/wk
Remarks: No evidence of carcinogenicity

Species: Mouse
Dose: 0, 5000, 10000 ppm
Exposure time: 103 wks
Number of exposures: 6 h/d, 5 d/wk
Remarks: No evidence of carcinogenicity

Reproductive toxicity

Propylene:
Species: Rat
Sex: male and female
Application Route: Inhalation
Dose: 0, 5000, 10000 ppm
Number of exposures: 6 hrs/d, 5 d/wk
Test period: 103 wks
NOAEL Parent: 10000 ppm

Species: Mouse
Sex: male and female
Application Route: Inhalation
Dose: 0, 5000, 10000 ppm
Number of exposures: 6 hrs/d, 5 d/wk
Test period: 103 wks
NOAEL Parent: 10000 ppm

Propane
Species: Rat
Sex: male and female
Application Route: Inhalation
Dose: 0, 1200, 4000, 12000 ppm
Exposure time: 6 weeks
Number of exposures: 6 hours/day, 7 days/week
Test period: 6 weeks
Test substance: yes
Method: OECD Guideline 422
NOAEL Parent: 12000 ppm
NOAEL F1: 12000 ppm

Developmental Toxicity

Propylene:
Species: Rat
Application Route: Inhalation
Dose: 0, 200, 1000, 10000 ppm
Number of exposures: 6 hrs/d
Test period: 14 d
Method: OECD Guideline 414
NOAEL Teratogenicity: 10000 ppm
NOAEL Maternal: 10000 ppm

Propylene (Polymer Grade, Unodorized)
Aspiration toxicity:
No aspiration toxicity classification.
### CMR effects

**Propylene**
- **Carcinogenicity**: Animal testing did not show any carcinogenic effects.
- **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.

**Propylene (Polymer Grade, Unodorized)**

**Further information**: This product contains NORMS based RADON:
- Carcinogenicity: IARC classification / Group 1 carcinogen
- Other: The amount of radon in the gas itself is not hazardous, but since radon rapidly decays (t1/2=3.82days) to form other radioactive elements including lead 210, polonium 210, and bismuth 210, equipments may contain radioactivity. The radon decay products are solids and therefore may attach to dust particles or form films in equipment. Inhalation, ingestions, or skin contact with radon decay products can lead to the deposit of radioactive material in the respiratory tract, bone, or blood forming organs, intestinal tract, and kidney, which may lead to certain cancers. Risks can be minimized by following good industrial and personal hygiene practices noted in section 7.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Ecotoxicity effects**

**Toxicity to fish**: No data available

#### 12.2 Persistence and degradability

- **Biodegradability**: This material is volatile and is expected to partition to air.

#### 12.3 Bioaccumulative potential

**Elimination information (persistence and degradability)**

- **Bioaccumulation**: This material is not expected to bioaccumulate.

#### 12.4 Mobility in soil

- **Mobility**: The product evaporates readily.

#### 12.5 Results of PBT and vPvB assessment

- **Results of PBT assessment**: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).
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.

12.6 Other adverse effects
Additional ecological information: No data available
Ecotoxicology Assessment
Short-term (acute) aquatic hazard: No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods
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: Do not dispose of waste into sewer. 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.

A quantitative risk assessment is not required for the environment.
A quantitative risk assessment is not required for human health.

SECTION 14: Transport information

14.1 - 14.7 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)
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1
NON- ODORIZED

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1, (-108 °C)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
UN1075, 2.1: NOT PERMITTED FOR TRANSPORT

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1, (B/D)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1

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

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National legislation

Water contaminating class (Germany): nwg not water endangering VwVwS

15.2 Chemical Safety Assessment
Components: propene 204-062-1

Major Accident Hazard Legislation:
- 96/82/EC Update: 2003 Extremely flammable
  - Quantity 1: 10 t
  - Quantity 2: 50 t
- ZEU_SEVES3 Update: FLAMMABLE GASES P2
  - Quantity 1: 10 t
  - Quantity 2: 50 t
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: 1
- Fire Hazard: 4
- Reactivity Hazard: 1

Further information
Legacy SDS Number: 5349

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>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
</tr>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
</tr>
<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
</tr>
<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>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</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>
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<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<td>IECS</td>
<td>IECSC</td>
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SDS Number: 100000010916 16/17
## Propylene (Polymer Grade, Unodorized)

**SAFETY DATA SHEET**

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Revision Date 2018-09-27

<table>
<thead>
<tr>
<th>EINECS</th>
<th>PICCS</th>
<th>MAK</th>
<th>PICCS</th>
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<tbody>
<tr>
<td>Europe Inventory of Existing Chemical Substances</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
<td>Germany Maximum Concentration Values</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>GHS</td>
<td>PRNT</td>
<td>Globally Harmonized System</td>
<td>Presumed Not Toxic</td>
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<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
<td>TWA</td>
<td>Time Weighted Average</td>
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<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<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>
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<td>&lt;=</td>
<td>Less Than or Equal To</td>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
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<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
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</tr>
</tbody>
</table>

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

- **H220**: Extremely flammable gas.
- **H280**: Contains gas under pressure; may explode if heated.