

Propylene

PRODUCT: PROPYLENE MSDS NR: 302-00-0038 BOC VERSION: 1.03 DATE: 14/02/06 PAGE: 1/1

1 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY

Product name	Propylene
Chemical formula	C ₃ H ₆
Company identification	see footer
Emergency phone Nos	see footer

2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	Substance
Components/Impurities	Contains no other components or impurities which will influence the classification of the product.
CAS Nr	115-07-1
EEC Nr (from EINECS)	204-062-1
Specification	99% minimum

3 HAZARDS IDENTIFICATION

Hazards identification	Liquefied gas under pressure Extremely flammable
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4 FIRST AID MEASURES

Inhalation	In high concentrations may cause asphyxiation and death. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination. Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
Skin/eye contact	For liquid spillage – flush with water for at least 15 minutes. Apply a sterile, dry dressing and seek medical advice as soon as possible.
Ingestion	Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards	Exposure to fire may cause containers to rupture/explode. Inform Fire Brigade.
Hazardous combustion products	Incomplete combustion may form carbon monoxide.
Suitable extinguishing media	All known extinguishants can be used.
Specific methods	If possible, stop flow of product. Move away from container and cool with water from a protected position. Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.
Special protective equipment for fire fighters	In confined space use self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions	Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Eliminate ignition sources.
Environmental precautions	Try to stop release. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Clean up methods	Ventilate area.

7 HANDLING AND STORAGE

Handling and storage	Ensure equipment is adequately earthed. Suck back of water into the container must be prevented. Purge air from system before introducing gas. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact BOC Gases if in doubt. Keep away from heat and ignition sources (including static discharges). Segregate from oxidant gases and other oxidants in store. Refer to BOC Gases container handling instructions. Keep container below 50°C in a well ventilated place.
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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection	Ensure adequate ventilation. Do not smoke while handling product.
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9 PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight	42
Melting point	-185°C
Boiling point	-47.7°C
Critical temperature	92.4°C
Relative density, gas	1.5 (air=1)
Relative density, liquid	0.6 (water=1)
Vapour Pressure 20°C	10.2 bar
Solubility mg/l water	384 mg/l
Appearance/Colour	Colourless gas
Odour	Sweetish. Poor warning properties at low concentrations.
Autoignition temperature	455°C
Flammability range	2-11 vol% in air.
Other data	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10 STABILITY AND REACTIVITY

Stability and reactivity	Can form explosive mixture with air. May react violently with oxidants.
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11 TOXICOLOGICAL INFORMATION

General No known toxicological effects from this product.

12 ECOLOGICAL INFORMATION

General No known ecological damage caused by this product.

13 DISPOSAL CONSIDERATIONS

General Do not discharge into areas where there is a risk of forming an explosive mixture with air. Waste gas should be flared through a suitable burner with flash back arrestor. Do not discharge into any place where its accumulation could be dangerous. Contact BOC Gases if guidance is required.

14 TRANSPORT INFORMATION

Proper Shipping Name Propylene
UN Nr 1077
Class 2.1
ADR/RID Classification Code 2F
ADR/RID Hazard Nr 23
Labelling ADR Label 2.1: flammable gas
Other transport information Avoid transport on vehicles where the load space is not separated from the driver's compartment.
 Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.
 Before transporting product containers ensure that they are firmly secured and:
 - cylinder valve is closed and not leaking
 - valve outlet cap nut or plug (where provided) is correctly fitted
 - valve protection device (where provided) is correctly fitted
 - adequate ventilation.
 - compliance with applicable regulations.

15 REGULATORY INFORMATION

Number in Annex I of Dir 67/548 601-011-00-9.

EC Classification F+;R12

Labelling of cylinders

- Symbols Label 2.1: flammable gas
- Risk phrases R12 Extremely flammable.
- Safety phrases S9 Keep container in well ventilated place.
 S16 Keep away from ignition sources – No smoking.
 S33 Take precautionary measures against static discharges.

16 OTHER INFORMATION

Ensure all national/local regulations are observed.
 Ensure operators understand the flammability hazard. Contact with liquid may cause cold burns and/or frostbite.
 The hazard of asphyxiation is often overlooked and must be stressed during operator training.
 Users of breathing apparatus must be trained.
 This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.
 Before using this product in any new process or experiment, a through material compatibility and safety study should be carried out.
 Always leak check cylinders when first collected, delivered or used using an approved leak detection fluid.
 Details given in this document are believed to be correct at the time of going to press.
 Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.
 For further safety information please refer to "Safe Under Pressure" and "Safe handling, storage and transport of industrial gas cylinders", both of which are available from your local BOC outlet.

VESSEL CHARACTERISTICS

Cylinder Size	Approx. Dimensions incl. Valve & guard where supplied (mm)	Approx. Full Vessel Weight (kg)
LE Drum	1250 x 375 2135 x 960	112 730

Outlet Connection: 5/8" female left hand cone recessed



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For product and safety enquiries please phone

**In the United Kingdom:
0800 111 333**

**BOC Customer Service Centre
Priestley Road, Worsley
Manchester M28 2UT
Fax: 0800 111 555**

**In the Republic of Ireland:
1850 333 435**

**BOC Ireland
P.O. Box 201
Bluebell, Dublin 12
Fax: 01 409 1801**