

Safety Data Sheet

PROPANE

Revision date : 2014/11/12
Version: 1.1

Page: 1/7
(30,091,368/SDS_GEN_CA/EN)

1. Product and Company Identification

Company

BASF Canada Inc.
5025 Creebank Road
Building A, Floor 2
Mississauga, ON, L4W 0B6, CANADA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: (800) 454-COPE (2673)

Molecular formula:	C3 H8
Chemical family:	hydrocarbons
Synonyms:	Propane

2. Hazards Identification

Emergency overview

DANGER:
EXTREMELY FLAMMABLE.
FLAMMABLE GAS. MAY CAUSE FLASH FIRE OR EXPLOSION.
SKIN CONTACT MAY RESULT IN FROSTBITE.
MAY REPLACE OXYGEN AND CAUSE ASPHYXIATION.
CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE.
CONTAINS MATERIAL WHICH CAN CAUSE CARDIAC OR CARDIOVASCULAR DAMAGE.
Use with local exhaust ventilation.
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.
Wear NIOSH-certified chemical goggles.
Wear protective clothing.
Eye wash fountains and safety showers must be easily accessible.
Avoid all sources of ignition: heat, sparks, open flame.

State of matter: gaseous
Colour: colourless
Odour: odourless

Potential health effects

Acute toxicity:

Virtually nontoxic by inhalation.

Irritation / corrosion:

Not irritating to the skin. Not irritating to the eyes. Contact with liquid may cause frostbite.

Sensitization:

The chemical structure does not suggest a sensitizing effect.

Safety Data Sheet

PROPANE

Revision date : 2014/11/12
Version: 1.1

Page: 2/7
(30,091,368/SDS_GEN_CA/EN)

Chronic toxicity:

Carcinogenicity: No data was available concerning carcinogenic activity. The chemical structure does not suggest a specific alert for such an effect.

Repeated dose toxicity: No substance-specific organotoxicity was observed after repeated administration to animals.

Reproductive toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Genotoxicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in a test with mammals.

Signs and symptoms of overexposure:

Overexposure may cause: unconsciousness, asphyxia, difficulty breathing, headache, dizziness

Potential environmental effects

Aquatic toxicity:

Due to the product characteristics the test is impossible.

Terrestrial toxicity:

Study scientifically not justified.

3. Composition / Information on Ingredients

Not WHMIS controlled.

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

If swallowed:

No hazards anticipated.

5. Fire-Fighting Measures

Flash point:	-104 °C -98.6 °C	Literature data.
Autoignition:	450 °C	
Lower explosion limit:	2.1 %(V)	(air) Literature data.
Upper explosion limit:	9.5 %(V)	(air) Literature data.

Safety Data Sheet

PROPANE

Revision date : 2014/11/12
Version: 1.1

Page: 3/7
(30,091,368/SDS_GEN_CA/EN)

Flammability: Extremely flammable.
Self-ignition temperature: 20 °C not self-igniting

Suitable extinguishing media:
water spray, carbon dioxide, foam

Hazards during fire-fighting:

Aerosol container contains flammable gas under pressure. Keep away from heat, spark, and open flames.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear. Wear a positive pressure supplied-air respirator.

Further information:

Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition. If exposed to fire, keep containers cool by spraying with water. Fight fire from maximum distance. Firefighting should be done from explosion resistant locations.

6. Accidental release measures

Personal precautions:

Remove persons to safety. Extinguish sources of ignition nearby and downwind. Isolate until gas has dispersed. Ensure adequate ventilation. Wind direction should be noted.

Environmental precautions:

Discharge into the environment must be avoided.

Cleanup:

Allow to evaporate. Ensure adequate ventilation.

7. Handling and Storage

Handling

General advice:

Ensure thorough ventilation of stores and work areas. Avoid all sources of ignition: heat, sparks, open flame.

Protection against fire and explosion:

When containers are opened, extremely flammable gases may be released. Avoid all sources of ignition: heat, sparks, open flame.

Storage

General advice:

Keep away from sources of ignition - No smoking. Keep in a cool, well-ventilated place.

8. Exposure Controls and Personal Protection

Components with occupational exposure limits

propane	OSHA PEL	PEL 1,000 ppm 1,800 mg/m3 ; TWA value 1,000 ppm 1,800 mg/m3 ;
	ACGIH TLV	; Included in the regulation, but with no data values - See the regulation for further details
propene	ACGIH TLV	TWA value 500 ppm ;

Safety Data Sheet

PROPANE

Revision date : 2014/11/12
Version: 1.1

Page: 4/7
(30,091,368/SDS_GEN_CA/EN)

Advice on system design:

Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Wear cold-resistant protective gloves.

Eye protection:

Tightly fitting safety goggles (chemical goggles).

General safety and hygiene measures:

Work place should be equipped with a shower and an eye wash. Wear protective clothing as necessary to prevent contact. Avoid inhalation of vapours/mists.

9. Physical and Chemical Properties

Form:	gas	
Odour:	odourless	
Odour threshold:	No data available.	
Colour:	colourless	
pH value:		The substance does not dissociate.
Melting point:	-187.6 °C	(1,013 hPa) Literature data.
Boiling point:	-42.1 °C	(1,013 hPa) Literature data.
Vapour pressure:		Study scientifically not justified.
Density:	0.493 g/cm ³	(25 °C, approx. 9,500 hPa) Literature data.
Vapour density:	1.55	(0 °C) Literature data., Heavier than air.
Partitioning coefficient n-octanol/water (log Pow):	1.81	(calculated) Study scientifically not justified.
Viscosity, dynamic:	0.008 mPa.s	(27 °C)
Particle size:		The substance / product is marketed or used in a non solid or granular form.
Solubility in water:	70 mg/l	(20 °C, 1,013 hPa)
Molar mass:	44.10 g/mol	

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame.

Substances to avoid:

Oxygen, chlorine, fluorine, oxidizing agents, strong acids

Hazardous reactions:

Formation of explosive gas/air mixtures.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

Safety Data Sheet

PROPANE

Revision date : 2014/11/12
Version: 1.1

Page: 5/7
(30,091,368/SDS_GEN_CA/EN)

Based on its structural properties the product is not classified as oxidizing.

11. Toxicological information

Acute toxicity

Oral:

Study not necessary due to exposure considerations.

Inhalation:

Type of value: LC50
Species: rat (male/female)
Value: > 1,440 mg/l
Exposure time: 15 min
Literature data.

Dermal:

Study not necessary due to exposure considerations.

Irritation / corrosion

Skin:

Study not necessary due to exposure considerations.

Eye:

Study not necessary due to exposure considerations.

Sensitization:

Study not necessary due to exposure considerations.

Genetic toxicity

Experimental/calculated data:
OECD Guideline 473 Chromosomal Aberration Test negative

12. Ecological Information

Fish

Acute:
calculated Fish/LC50 (96 h): 15 mg/l
The product has not been tested. The statement has been derived from the structure of the product.

Chronic:

Study does not need to be conducted.

Aquatic invertebrates

Acute:
calculated daphnia/EC50 (48 h): 16.5 mg/l
The product has not been tested. The statement has been derived from the structure of the product.

Chronic:

Study does not need to be conducted.

Safety Data Sheet

PROPANE

Revision date : 2014/11/12
Version: 1.1

Page: 6/7
(30,091,368/SDS_GEN_CA/EN)

Microorganisms

Toxicity to microorganisms:

Study scientifically not justified.

Degradability / Persistence

Biological / Abiological Degradation

Test method: Specific analysis (aerobic), Seawater
Method of analysis: Specific analysis
Degree of elimination: 100 % (385.5 h)
Evaluation: Analogous: Assessment derived from products with similar chemical character.
Readily biodegradable (according to OECD criteria).

Bioaccumulation

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

13. Disposal considerations

Waste disposal of substance:

Observe national and local legal requirements.

Container disposal:

Return empty or unusable containers to supplier.

14. Transport Information

Land transport

TDG

Hazard class: 2.1
ID number: UN 1978
Hazard label: 2.1
Proper shipping name: PROPANE

Sea transport

IMDG

Hazard class: 2.1
ID number: UN 1978
Hazard label: 2.1
Marine pollutant: NO
Proper shipping name: PROPANE

Air transport

IATA/ICAO

Hazard class: 2.1
ID number: UN 1978
Hazard label: 2.1
Proper shipping name: PROPANE

Safety Data Sheet

PROPANE

Revision date : 2014/11/12
Version: 1.1

Page: 7/7
(30,091,368/SDS_GEN_CA/EN)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released / listed

WHMIS classification: A: Compressed Gas



B1: Flammable Gas



This product is WHMIS controlled.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

16. Other Information

Recommended use: Intermediate for industrial use only

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

SDS Prepared by:

BASF NA Product Regulations

BASF HOTLINE (800) 454 – COPE (2673)

SDS Prepared on: 2014/11/12

END OF DATA SHEET