SAFETY DATA SHEET

According to Safe Work Australia

Printing date 08.10.2013 Revision: 08.10.2013

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: PROPANE

Product Code: 326438, COMP3961

Recommended Use of the Chemical and Restriction on Use: Fuel, commercial and industrial applications.

Details of Manufacturer or Importer:
Primus Australia Pty Ltd
3/20 Enterprise Drive
Bundoora VIC 3083

Phone Number: 03 9468 4400

Emergency telephone number: 13 11 26

2 . HAZARDS IDENTIFICATION

Hazardous Nature:


GHS02 flame

Flam. Gas 1 H220 Extremely flammable gas.

Label Elements

Signal Word Danger

Hazard Statements
H220 Extremely flammable gas.

Precautionary Statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 Eliminate all ignition sources if safe to do so.
P403 Store in a well-ventilated place.

3 . COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures
Description:
Mixture of substances listed below with nonhazardous additions.
NOTE: Ethyl Mercaptan added as an odorant.

Hazardous Components:

74-98-6	Propane	Flam. Gas 1, H220; Press. Gas, H280	95-100%
115-07-1	1-Propene	Flam. Gas 1, H220; Press. Gas, H280	0-5%

Additional information:
DANGER! Extremely flammable. Compressed gas. At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen. Liquid can cause burns similar to frostbite. Caution: Ethyl mercaptan used as a warning agent may not be entirely effective in all situations because of a condition commonly referred to as odor fade.

4 . FIRST AID MEASURES

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

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Skin Contact:
In case of skin contact, immediately remove contaminated clothing. Frozen tissue should be flushed with plenty of warm water. Do not use hot water. Cryogenic (low temperature) burns which result in blistering or deeper tissue freezing should be promptly treated by a physician.

Eye Contact:
In case of eye contact, rinse cautiously with water for several minutes, occasionally lifting the upper and lower lids until no chemical remains. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion:
Ingestion is not considered a potential route of exposure. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
For small fires use dry chemical or carbon dioxide. For large fires use water spray or fog.

Specific Hazards Arising from the Chemical:
Flammable gas. Vapours are heavier than air and may travel along the ground and collect in low or confined areas and be exposed to a source of ignition (pilot light, heater, electric motor) some distance away.
Shut off gas source and allow the fire to burn itself out. Gas fires should not be extinguished unless the gas flow can be stopped immediately.If gas source cannot be shut off immediately, fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool container with flooding quantities of water until well after fire is out to prevent container from exploding. ALWAYS stay away from tanks engulfed in fire. WITHDRAW IMMEDIATELY in case of rising sound from venting safety devices or discoloration of tank. For massive fire, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn.

Special Protective Equipment and Precautions for Fire Fighters:
Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.

6 . ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions:
In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:
Eliminate all sources of ignition and stop leak if safe to do so. In case of a leak or of an emergency disposal, secure the cylinder and slowly discharge the gas to the atmosphere in a well-ventilated area or outdoors. Vapour can be dispersed with sustained water spray. Use only non-sparking tools.

7 . HANDLING AND STORAGE

Precautions for Safe Handling:
Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours and gas. Use only in a well-ventilated area.
Take precautionary measures against static discharge. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

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Conditions for Safe Storage:
Chain cylinders when not in use. Cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), segregated from oxidizers such as oxygen and chlorine, away from areas of heavy traffic and emergency exits. Valve caps should remain on cylinders. The most common hazard is leakage due to faulty pressure control regulators.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards (Safe Work Australia):
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Engineering Contols:
Local exhaust and general ventilation are necessary in work area to prevent accumulation of explosive mixtures. Provide special ventilation in sumps and confined spaces. Use explosion-proof ventilating equipment.

Personal Protective Equipment (PPE):

Respiratory Protection:
Use a Safe Work Australia approved full face supplied air respirator if high airborne concentrations of the material are present. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:
Protective gloves and protective clothing. See Australian Standards AS/NZS 2161, 2210.1 and 2210.2 for more information.

Eye and Face Protection:
Safety glasses with top and side shields or goggles. See Australian Standards AS/NZS 1336 and 1337 for more information.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	
Form:	Liquefied gas
Colour:	Colourless
Odour:	Rotten egg odour if odourised, otherwise odourless.
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/Melting range:	No information available
Initial Boiling Point/Boiling Range:	-42.2 °C
Flash Point:	-104.4 °C
Flammability:	Extremely flammable
Auto-ignition Temperature:	467.8 °C
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	2.1 Vol %
Upper:	9.5 Vol %
Vapour Pressure at 38 °C:	190 psia
Relative Density:	0.5 (water=1)
Vapour Density:	1.5 (air=1)
Evaporation Rate:	No information available
Solubility in Water:	Sight
Partition Coefficient (n-octanol/water):	No information available
Viscosity:	No information available

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VOC: No information available

10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong acids, alkalies and oxidisers such as chlorine (gas or liquid) and oxygen.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide.

11 . TOXICOLOGICAL INFORMATION

Toxicity:

LD_{50}/LC_{50} Values Relevant for Classification:		
74-98-6 Propane		
Inhalation	LC_{50}/4 h	658 mg/l (rat)

Acute Health Effects
Inhalation:
Asphyxiant gas. At very high concentrations can displace the normal air and cause suffocation from lack of oxygen. Symptoms of lack of oxygen include increase depth and frequency of breathing, dizziness, headache, nausea or loss of consciousness.
Skin:
Liquid can cause burns similar to frostbite. Cryogenic burns which may cause blistering or deeper tissue freezing.
Eye: Liquid can cause burns similar to frostbite.
Ingestion: Liquid can cause burns similar to frostbite.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Based on classification principles, the classification criteria are not met.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity:
Propylene is classified by IARC as a Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:
Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:
Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: No information available

Existing Conditions Aggravated by Exposure:
Personnel with pre-existing chronic respiratory diseases should avoid exposure to this product.

12 . ECOLOGICAL INFORMATION

Ecotoxicity: No data available on finished product.

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Persistence and Degradability: No data available on finished product.

Bioaccumulative Potential: No data available on finished product.

Mobility in Soil: No data available on finished product.

13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:
Please consult your state Land Waste Management Authority for more information.

14 . TRANSPORT INFORMATION

UN Number **ADG, IMDG, IATA**	UN1978
Proper Shipping Name **ADG, IMDG, IATA**	PROPANE
Dangerous Goods Class **ADG Class:**	2.1
Packing Group: **ADG, IMDG, IATA**	Not applicable
Hazchem Code:	2YE
Special Provisions:	AU03
Limited Quantities:	0
Packagings & IBCs - Packing Instruction:	P200
Packagings & IBCs - Special Packing Provisions:	Not applicable
Portable Tanks & Bulk Contatiners - Instructions:	T50
Portable Tanks & Bulk Containers - Special Provisions:	Not applicable

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:	
74-98-6	Propane
115-07-1	1-Propene

16 . OTHER INFORMATION

Creation Date: 08.10.2013

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations and acronyms:
ADG: Australian Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds
LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard

Disclaimer

This MSDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011”

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