

## Section 1 - Identification of the Material and Supplier

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**Chemical nature:** Propylene gas.  
**Trade Name:** Trade Map Gas  
**Product Use:** Source of flammable gas.  
**Creation Date:** December, 2014  
**This version issued:** January, 2015 and is valid for 5 years from this date.

## Section 2 - Hazards Identification

### Statement of Hazardous Nature

This product is classified as: F+, Extremely Flammable. Not classified as hazardous according to the criteria of SWA.

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

**Risk Phrases:** R12, R67. Extremely flammable. Vapours may cause drowsiness and dizziness.

**Safety Phrases:** S2, S9, S16, S23, S36, S51, S24/25. Keep out of reach of children. Keep container in a well ventilated place. Keep away from sources of ignition - No smoking. Do not breathe vapours. Wear suitable protective clothing. Use only in well ventilated areas. Avoid contact with skin and eyes.

**SUSMP Classification:** None allocated.

**ADG Classification:** Class 2.1: Flammable gases.

**UN Number:** 1077, PROPYLENE



### GHS Signal word: DANGER

#### HAZARD STATEMENT:

H224: Extremely flammable liquid and vapour.

#### PREVENTION

P102: Keep out of reach of children.

P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

P262: Do not get in eyes, on skin, or on clothing.

P281: Use personal protective equipment as required.

#### RESPONSE

P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog. Water fog or fine spray is the preferred medium for large fires.

#### STORAGE

P403+P235: Store in a well-ventilated place. Keep cool.

#### DISPOSAL

P501: Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

## Emergency Overview

**Physical Description & Colour:** Colourless gas.

**Odour:** No data.

**Major Health Hazards:** no significant risk factors have been found for this product.

## Potential Health Effects

### Inhalation:

**Short Term Exposure:** 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.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

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Phone: 03 9775 0713 (office hours)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

#### Skin Contact:

**Short Term Exposure:** Liquid can cause burns similar to frostbite.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

#### Eye Contact:

**Short Term Exposure:** Liquid can cause burns similar to frostbite.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

#### Ingestion:

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

#### Carcinogen Status:

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** Propylene is Class 3 - unclassifiable as to carcinogenicity to humans.

See the IARC website for further details. A web address has not been provided as addresses frequently change.

### Section 3 - Composition/Information on Ingredients

| Ingredients | CAS No   | Conc, % | TWA (mg/m <sup>3</sup> ) | STEL (mg/m <sup>3</sup> ) |
|-------------|----------|---------|--------------------------|---------------------------|
| Propylene   | 115-07-1 | pure*   | not set                  | not set                   |

\* commercially pure

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

### Section 4 - First Aid Measures

#### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** Symptoms are likely due to lack of oxygen in bloodstream. If available, and victim is breathing, administer oxygen. If not breathing, apply mouth to mouth resuscitation. In any event, if victim is unconscious or shows any unusual symptoms, seek urgent medical attention.

**Skin Contact:** Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

**Eye Contact:** No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

### Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical, foam, water fog. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. There is a significant danger of an explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus. Cool closed, undamaged containers exposed to fire with water spray.

**Flash point:** -108°C, Closed cup

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Upper Flammability Limit: 11%  
Lower Flammability Limit: 2%  
Autoignition temperature: 497°C  
Flammability Class: Flammable Category 2 (GHS); Highly Flammable (AS1940).

### Section 6 - Accidental Release Measures

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Take suitable precautions e.g. use of non-sparking equipment to avoid creating sparks or flames which may ignite the spilled material. Leaking gases may form an explosion hazard. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

### Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Store in a cool (below 30°C), well ventilated area. Protect from direct sunlight. Make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep more than 25kg of flammable gases, you are probably required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

### Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

**SWA Exposure Limits**                      **TWA (mg/m<sup>3</sup>)**                      **STEL (mg/m<sup>3</sup>)**

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when this product is being used.

**Skin Protection:** You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

**Protective Material Types:** There is no specific recommendation for any particular protective material type.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

### Section 9 - Physical and Chemical Properties:

**Physical Description & colour:** Colourless gas.

**Odour:** No data.

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|                                      |   |
|--------------------------------------|---|
| <b>Boiling Point:</b>                | -48°C to -23°C at 100kPa                      |
| <b>Freezing/Melting Point:</b>       | No specific data. Gas at normal temperatures. |
| <b>Volatiles:</b>                    | Completely volatile at 100°C.                 |
| <b>Vapour Pressure:</b>              | 756 kPa at 21°C                               |
| <b>Vapour Density:</b>               | 1.5 at 15°C.                                  |
| <b>Specific Gravity:</b>             | 0.52  |
| <b>Water Solubility:</b>             | Slightly soluble.                             |
| <b>pH:</b>                           | No data.                                      |
| <b>Volatility:</b>                   | No data.                                      |
| <b>Odour Threshold:</b>              | No data.                                      |
| <b>Evaporation Rate:</b>             | No data.                                      |
| <b>Coeff Oil/water Distribution:</b> | No data                                       |
| <b>Autoignition temp:</b>            | 497°C   |

## Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Keep away from sources of sparks or ignition. Any electrical equipment in the area of this product should be flame proofed.

**Incompatibilities:** strong oxidising agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** Polymerisation reactions are unlikely; they are not expected to occur.

## Section 11 - Toxicological Information

**Local Effects:**

**Target Organs:** There is no data to hand indicating any particular target organs.

## Classification of Hazardous Ingredients

Ingredient

Risk Phrases

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

## Section 12 - Ecological Information

Insufficient data to be sure of status. Expected to not be an environmental hazard.

## Section 13 - Disposal Considerations

**Disposal:** This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable in-house, consider controlled incineration, or contact a specialist waste disposal company.

## Section 14 - Transport Information

**Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.**

**UN Number:** 1077, PROPYLENE

**Hazchem Code:** 2YE

**Special Provisions:** None allocated

**Limited quantities:** ADG 7 specifies a Limited Quantity value of NONE for this class of product.

**Dangerous Goods Class:** Class 2.1: Flammable gases.

**Packaging Group:** No packing group specified.

**Packaging Method:** P200

Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the

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same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

## Section 15 - Regulatory Information

**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations.

## Section 16 - Other Information

**This SDS contains only safety-related information. For other data see product literature.**

### Acronyms:

|                     |   |
|---------------------|---|
| <b>ADG Code</b>     | Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)                     |
| <b>AICS</b>         | Australian Inventory of Chemical Substances   |
| <b>SWA</b>          | Safe Work Australia, formerly ASCC and NOHSC  |
| <b>CAS number</b>   | Chemical Abstracts Service Registry Number  |
| <b>Hazchem Code</b> | Emergency action code of numbers and letters that provide information to emergency services especially firefighters |
| <b>IARC</b>         | International Agency for Research on Cancer   |
| <b>NOS</b>          | Not otherwise specified   |
| <b>NTP</b>          | National Toxicology Program (USA)   |
| <b>R-Phrase</b>     | Risk Phrase   |
| <b>SUSMP</b>        | Standard for the Uniform Scheduling of Medicines & Poisons  |
| <b>UN Number</b>    | United Nations Number   |

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)

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