HYCHILL HC32
SAFETY DATA SHEET

1. Identification

Trade Names
HyChill HC32

Chemical Name
propylene

Synonyms
C3-H6; CH3CH=CH3; propene; 1-propene; 1-propylene; methylethylene; methylethene;

Supplier:

HyChill Australia Pty Ltd
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85a Canterbury Road
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Australia

24 Hour Environmental / Health Emergency
0418 334 210

Telephone - Supplier General Contact
(03) 9728 5055

2. Hazards identification

Hazard Category	Flammable Gases Category 1A, Gases Under Pressure (Compressed Gas)
GHS Label Elements	
Signal Word	DANGER
Hazard statement(s)	Extremely flammable gas. Contains gas under pressure; may explode if heated.
Precautionary statement(s)	**Prevention:** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. **Response:** Eliminate all ignition sources if safe to do so. In case of leakage, eliminate all ignition sources. **Storage:** Protect from sunlight. Store in a well-ventilated place. **Disposal:** Dispose of waste and residues in accordance with local authority requirements.
Other hazards	None known.

3. Composition and information on ingredients

Main Component:	***CAS Number***	***%***
Propylene	115-07-1	<99
Minor Component:		
Ethane	74-84-0	> 1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

4. First-aid measures

In all cases seek medical attention.

Eye Contact	Not likely, due to the form of the product. If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention promptly if symptoms persist or occur after washing.

Inhalation	Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory tract irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
Skin Contact	Not likely, due to the form of the product. If frostbite occurs, immerse the affected area in warm water (not exceeding 105°F/41°C). Keep immersed for 20 to 40 minutes. Get medical attention immediately.
Ingestion	This material is a gas under normal atmospheric conditions and ingestion is unlikely.
Personal protection for first-aid responders	First aid personnel must be aware of their own risk during rescue. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Symptoms caused by exposure	Exposure to rapidly expanding gas or vaporising liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that the victim may be unable to protect themself.
Advice to Doctor	Exposure may aggravate pre-existing respiratory disorders. Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Extinguishing media
DO NOT EXTINGUISH BURNING GAS UNLESS LEAK CAN BE STOPPED SAFELY: OTHERWISE: LEAVE GAS TO BURN.

FOR SMALL FIRE:
Dry chemical, CO_2 or water spray to extinguish gas (only if absolutely necessary and safe to do so).
DO NOT use water jets.

FOR LARGE FIRE:
Cool cylinder by direct flooding quantities of water onto upper surface until well after fire is out.

Flammability	Extremely flammable gas. Contents under pressure. Pressurised containers may explode when exposed to heat or flame.
Fire and Explosion	Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers with flooding quantities of water until well after the fire is out.
Extinguishing	Dry chemical powder. Carbon dioxide (CO_2). Water fog. Foam. Do not use a water jet as an extinguisher, as this will spread the fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. In the event of a leak evacuate all personnel until ventilation can restore oxygen concentrations to safe levels. Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Wear appropriate personal protective equipment (See Section 8).
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Isolate area until gas has dispersed. For waste disposal, see section 13 of the SDS.

Environmental precautions	Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. All equipment used when handling the product must be grounded. Do not breathe gas. Avoid prolonged exposure. Do not enter storage areas or confined spaces unless adequately ventilated. Use only outdoors or in a well-ventilated area. Oxygen concentration should not fall below 19.5 % at sea level (pO2 = 135 mmHg). Mechanical ventilation or local exhaust ventilation may be required. Wear appropriate personal protective equipment. Observe good industrial hygiene practises.
Conditions for Safe Storage	Store at temperatures not exceeding 49°C/120°F. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Protect cylinders from damage. Stored containers should be periodically checked for general condition and leakage. Store in original tightly closed container. Store in a well-ventilated place. Use care in handling/storage. Store away from incompatible materials (see Section 10 of the SDS).
Other information	

8. Exposure controls and personal protection

Ventilation	
Exposure	
PPE	
Eye and face protection	Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Other protection	The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton. Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost. BRETHERICK: Handbook of Reactive Chemical Hazards. Protective overalls, closely fitted at neck and wrist. Eye-wash unit. IN CONFINED SPACES: Non-sparking protective boots Static-free clothing. Ensure availability of lifeline. Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).

	Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.
Respiratory protection	Positive pressure, full face, air-supplied breathing apparatus should be used for work in enclosed spaces if a leak is suspected or the primary containment is to be opened (e.g. for a cylinder change). Air-supplied breathing apparatus is required where release of gas from primary containment is either suspected or demonstrated.

9. Physical and chemical properties

Appearance	Liquefied compressed gas with a mild odour. Floats and boils on water. Forms a dense vapour cloud at standard atmospheric conditions. Soluble in alcohol and ether. Slightly soluble in water.		
Physical state	Compressed Gas	**Solubility (water)**	Immiscible
Odour	Naturally Occuring	**Volatile Component (%vol)**	100
Molecular weight (g/mol)	42.08	**Flammability**	HIGHLY FLAMMABLE.
Evaporation	Not Available	**Lower Explosion Limit**	2.0
Upper Explosion Limit	11.1	**Flash Point °C**	-72
Vapour pressure (kPa)	1043 @ 21.1 C	**Autoignition Temperature °C**	499
Melting point / freezing point (°C)	-185.2	**Initial boiling point and boiling range (°C)**	-47.4

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal temperature conditions and recommended use. Unstable in the presence of incompatible materials. Hazardous polymerisation will not occur. Presence of an ignition source Presence of heat source
Possibility of hazardous reactions	Polymerization will not occur. May form explosive mixture with air. This product may react with oxidising agents.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidising agents. Strong acids. Halogens.
Hazardous decomposition products	Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. Hydrocarbons.

11. Toxicological information

Health Hazard Summary	Exposure to rapidly expanding gas or vaporising liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that the victim may be unable to protect themself.
Eye	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). Direct contact with the eye may not cause irritation because of the extreme volatility of the gas; however concentrated atmospheres may produce irritation after brief exposures.
Inhalation	High concentrations: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness,

	light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.
Skin	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Ingestion	This material is a gas under normal atmospheric conditions and ingestion is unlikely.
Toxicity Data	Not expected to be acutely toxic.

12. Ecological information

Ecotoxicity	The product is not expected to be hazardous to the environment.
Degradability	The product is readily biodegradable.
Mobility	Not relevant, due to the form of the product.
Other	The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Waste Disposal	Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapour that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations.
Legislation	Dispose of in accordance with relevant local legislation.

14. Transport information

Transport of these gas mixtures is controlled in accordance with the requirements of the ADG Code and the Load Restraint Guide.

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA.
CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No.	1077	**DG Class**	2.1	**Subsidiary Risk**	None Allocated
Hazchem Code	2YE	**EPG**		**Pkg Group**	None Allocated

15. Regulatory information

Safety, health and environmental regulations	
National regulations	No poison schedule number allocated. This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals

16. Other information

The information and recommendations contained herein are, to the best of HyChill's knowledge and belief, accurate and reliable as of the date issued. You can contact HyChill to insure that this document is the most current available. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.

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- Contact Point See Section 1 for Local Contact number
- Safety Data Sheet according to WHS and ADG requirements
- https://hychill.com.au/sds

End of SDS
