



ULTRA COOL PRODUCTS  
889 BARTON ST. UNIT #1  
STONEY CREEK, ON L8E 5V1  
www.ultracool.ca  
905-643-0060

PRODUCT: MAPP Gas

CODE: UF-4941

## SECTION 01: IDENTIFICATION

Product Identifier..... MAPP Gas  
Other means of Identification..... UF-4941  
Chemical Family..... Propylene / propane and dimethyl ether.  
Recommended use and restrictions..... Fuel. Soldering, braising.  
Initial Supplier Identifier..... Ultra Cool Products  
889 Barton St. Unit #1  
Stoney Creek, ON L8E 5V1  
Tel: 905-643-0060  
Fax: 905-828-8070  
Emergency telephone number and any ... Ultra Cool Products: 905-643-0060 (9:00 - 5:00; M-F) . In the event of a transport  
restrictions on the use of that number emergency contact CANUTEC at (613) 996-6666. .

## SECTION 02: HAZARD IDENTIFICATION



Signal Word..... DANGER.  
Hazard Classification..... Flammable Gases — Category 1. Gases Under Pressure — Liquefied Gas.  
Hazard Statements..... H220 Extremely flammable gas . H280 Contains gas under pressure; may explode if heated .  
Prevention..... P210 Keep away from all sources of heat, sparks, open flames, hot surfaces. No smoking.  
Response..... P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely . P381 In case of leakage, eliminate all ignition sources .  
Storage..... P410 + P403 Protect from sunlight. Store in a well-ventilated place .  
Disposal..... Dispose of contents and empty containers in accordance with local regulations.  
Other hazards..... May displace oxygen and cause rapid suffocation .  
Mixture Statement..... This product has been classified based upon the information provided by the supplier.

## SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL NAME AND SYNONYMS | CAS #    | WT. % |
|----------------------------|----------|-------|
| Propylene                  | 115-07-1 | 36-44 |
| Dimethyl ether             | 115-10-6 | 36-44 |
| Propane                    | 74-98-6  | 18-22 |

## SECTION 04: FIRST-AID MEASURES

## FIRST AID MEASURES:

Skin Contact..... Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Wash clothing before reuse. Clean shoes thoroughly before reuse.  
Eye Contact..... Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. . Get medical attention immediately.  
Ingestion..... Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. Never give anything by mouth to an unconscious person. . If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. As this product rapidly becomes a gas when released, refer to the inhalation section.

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CODE: UF-4941

**SECTION 04: FIRST-AID MEASURES**

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation.....                             | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.                                                                 |
| Symptoms and effects.....                   | Harmful if inhaled. May displace oxygen and cause rapid suffocation. Propylene is a simple asphyxiant that displaces oxygen from the air. The main symptoms associated with simple asphyxia are headache, nausea, dizziness, incoordination, breathing difficulties, loss of consciousness and possibly anoxia-related death. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite. Liquid can cause burns similar to frostbite. |
| Medical attention and special treatment.... | Treat symptomatically. Adverse symptoms may include frostbite. In the event of an incident involving this product ensure that medical authorities are provided a copy of this safety data sheet. The administration of oxygen requires additional training.                                                                                                                                                                                                                     |

**SECTION 05: FIRE-FIGHTING MEASURES**

|                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable and unsuitable extinguishing media                                                                  | Water spray, Carbon dioxide (CO <sub>2</sub> ), Foam, Dry chemical.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Specific hazards arising from the hazardous product, such as the nature of any hazardous combustion products | Contains gas under pressure. Extremely flammable gas. Mixed with air can produce an explosive mixture. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. By fire: Protect against potentially toxic and irritating fumes.                                                                                                                                                                                                                                                                                                  |
| Special protective equipment and precautions for fire-fighters                                               | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Cool fire-exposed containers with cold water spray. Heat will cause pressure build up and may cause explosive rupture. Eliminate all ignition sources if safe to do so. Cut off gas supply if safe to do so. Use self-contained breathing apparatus and full firefighting gear. Decomposition and combustion products may be toxic. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

|                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8). No flares, smoking or flames in hazard area. Avoid dispersal of spilled material and runoff the contact with soil, waterways, drains and sewers. Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. |
| Methods and materials for containment and cleaning up               | Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Ventilate area. Prevent product from entering sewers or waterways.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

**SECTION 07: HANDLING AND STORAGE**

|                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling.....                           | Exposure to this product requires prior training and information. Read the information on the label and the safety data sheet before handling this product. Contains gas under pressure. Put on appropriate personal protective equipment. Wear appropriate respirator when ventilation is inadequate. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. Launder contaminated clothing before reuse. When using, do not eat or drink. Wash hands before eating, drinking, or smoking. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide or drop. |
| Conditions for safe storage, including any incompatibilities | Store in accordance with local regulations. Store in a segregated and approved area. Store away from all sources of heat and ignition. Store away from direct sunlight. Store away from incompatible materials. Keep container tightly closed in a well ventilated area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

PRODUCT: MAPP Gas

CODE: UF-4941

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

| INGREDIENTS                                                           | TWA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ACGIH TLV<br>STEL | PEL             | OSHA PEL<br>STEL | REL             | NIOSH           |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|------------------|-----------------|-----------------|
| Propylene                                                             | Not established                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Not established   | Not established | Not established  | Not established | Not established |
| Dimethyl ether                                                        | 1000 ppm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                 |                  |                 |                 |
| Propane                                                               | 1000 ppm (with air)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                 |                  |                 |                 |
| Exposure Limits.....                                                  | MAPP Gas: NIOSH REL TWA 1000 ppm (1800 mg/m3) ST 1250 ppm (2250 mg/m3)<br>OSHA PEL TWA 1000 ppm (1800 mg/m3). Manufacturer: TLV-TWA:300 mg/m3.                                                                                                                                                                                                                                                                                                                                                                                               |                   |                 |                  |                 |                 |
| Appropriate engineering controls.....                                 | Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of 'Industrial Ventilation, a manual of Recommended Practice. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion -proof ventilation equipment. |                   |                 |                  |                 |                 |
| Individual protection measures, such as personal protective equipment |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |                 |                  |                 |                 |
| Eye/Type.....                                                         | Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).                                                                                                                                                                                                                                                                                                                                                                                 |                   |                 |                  |                 |                 |
| Gloves/Type.....                                                      | Wear skin protection equipment. The selection of skin protection equipment depends on the nature of the work to be performed. Wear chemical resistant gloves to prevent skin contact. Contact glove supplier for additional information.                                                                                                                                                                                                                                                                                                     |                   |                 |                  |                 |                 |
| Footwear/Type.....                                                    | Wear safety boots per local regulations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                 |                  |                 |                 |
| Clothing/Type .....                                                   | Wear adequate protective clothing to prevent skin contact. Anti-static clothing.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                 |                  |                 |                 |
| Respiratory/Type.....                                                 | Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.                                                                                                                                                                                                                                                                                                                     |                   |                 |                  |                 |                 |
| Other/Type.....                                                       | Handle in accordance with good industrial hygiene and safety practice. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Emergency eye wash station and shower should be available. Anyone handling this product should wash their hands and face before eating, drinking or using tobacco products. NO SMOKING.                                                                                                                                                                                      |                   |                 |                  |                 |                 |

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

|                                            |                            |
|--------------------------------------------|----------------------------|
| Appearance / physical state .....          | Gas. Liquefied.            |
| Colour.....                                | Colorless.                 |
| Odour.....                                 | Odour added. Sulphur like. |
| Odour Threshold (ppm).....                 | Not available.             |
| pH.....                                    | Not applicable.            |
| Melting/Freezing Point.....                | Not available.             |
| Initial Boiling Point/Boiling Range.....   | Not available.             |
| Flash Point (deg C), Method.....           | Not available.             |
| Evaporation Rate.....                      | Not available.             |
| Flammability (solid/gas).....              | Extremely flammable gas.   |
| Upper Flammable Limit (% Vol).....         | 17.                        |
| Lower Flammable Limit (% Vol).....         | 2.                         |
| Vapour Pressure (mm Hg).....               | Not available.             |
| Vapour Density (Air=1).....                | Not available.             |
| Relative Density/Specific Gravity.....     | No data.                   |
| Solubility.....                            | Slight.                    |
| Coefficient of Water/Oil Distribution..... | Not available.             |
| Auto Ignition Temperature (deg C).....     | Not available.             |
| Decomposition temperature.....             | Not available.             |
| Viscosity.....                             | Not applicable.            |

**SECTION 10: STABILITY AND REACTIVITY**

|                                             |                                                                                                                              |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Reactivity.....                             | Contains gas under pressure; may explode if heated. Reacts with oxidants causing fire and explosion hazard.                  |
| Chemical stability.....                     | Stable at normal temperatures and pressures.                                                                                 |
| Possibility of hazardous reactions.....     | Will not polymerize.                                                                                                         |
| Conditions to avoid, including static ..... | Avoid all sources of ignition: heat, sparks, open flame. Avoid sunlight. Avoid extreme temperatures.                         |
| discharge, shock or vibration               |                                                                                                                              |
| Incompatible materials.....                 | Strong oxidizing agents. Halogens.                                                                                           |
| Hazardous decomposition products.....       | No hazardous decomposition products if stored and handled as prescribed/indicated. By fire: Carbon dioxide, carbon monoxide. |

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CODE: UF-4941

**SECTION 11: TOXICOLOGICAL INFORMATION**

| INGREDIENTS                                                                  | LC50                                                                                                                                                                                                                                                                                                                                                   | LD50           |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Propylene                                                                    | >50000 ppm (4 hr.)                                                                                                                                                                                                                                                                                                                                     | Not determined |
| Dimethyl ether                                                               | 308.5 mg/L (4 hr.)                                                                                                                                                                                                                                                                                                                                     | Not determined |
| Propane                                                                      | Not determined                                                                                                                                                                                                                                                                                                                                         | Not determined |
| Route of Exposure.....                                                       | Skin contact, eye contact, inhalation.                                                                                                                                                                                                                                                                                                                 |                |
| ATES.....                                                                    | Not determined.                                                                                                                                                                                                                                                                                                                                        |                |
| Symptoms related to the physical, chemical and toxicological characteristics |                                                                                                                                                                                                                                                                                                                                                        |                |
| Effects of Acute Exposure.....                                               | Harmful if inhaled. The main symptoms associated with simple asphyxia are headache, nausea, dizziness, incoordination, breathing difficulties, loss of consciousness and possibly anoxia-related death. This product is not irritating but there is possibility of frostbite in contact with the liquefied gas. Harmful if absorbed through the skin . |                |
| Effects of Chronic Exposure.....                                             | Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.                                                                                                                                                                                                                                                    |                |
| Sensitization.....                                                           | None expected.                                                                                                                                                                                                                                                                                                                                         |                |
| Mutagenicity.....                                                            | No known mutagenicity effects.                                                                                                                                                                                                                                                                                                                         |                |
| Reproductive Effects.....                                                    | No known reproductive effects. .                                                                                                                                                                                                                                                                                                                       |                |
| Carcinogenicity of Material.....                                             | None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA OR ACGIH as a carcinogen.                                                                                                                                                                                                |                |
| Specific Target Organ Toxicity - single ..... exposure                       | This information, if applicable, can be found in Section 2.                                                                                                                                                                                                                                                                                            |                |
| Specific Target Organ Toxicity - repeated exposure                           | This information, if applicable, can be found in Section 2.                                                                                                                                                                                                                                                                                            |                |

**SECTION 12: ECOLOGICAL INFORMATION**

|                                    |                                                                            |
|------------------------------------|----------------------------------------------------------------------------|
| Ecotoxicity.....                   | No product data availalbe. Discharge into the environment must be avoided. |
| Persistence and degradability..... | Product data not available.                                                |
| Bioaccumulation Potential.....     | Product data not available.                                                |
| Mobility in soil.....              | Product data not available.                                                |
| Other adverse effects.....         | Product data not available.                                                |

**SECTION 13: DISPOSAL CONSIDERATIONS**

|                                                                                                           |                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Information on safe handling for disposal . and methods of disposal, including any contaminated packaging | Dispose of waste in accordance with all applicable Federal, Provincial/State and local regulations. DO NOT HEAT OR CUT EMPTY CONTAINERS WITH ELECTIC OR GAS TORCH. |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**SECTION 14: TRANSPORT INFORMATION**

|                                   |                                                                                                                                                                                      |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TDG Classification.....           | UN3161 - LIQUEFIED GAS, FLAMMABLE, N.O.S. (Propylene), 2.1. Limited Quantity: 0.125 L . Refer to Part 1 of Transportation of Dangerous Goods Regulations for additional information. |
| Transport in bulk / IBC Code..... | No data available.                                                                                                                                                                   |

**SECTION 15: REGULATORY INFORMATION**

|                            |               |
|----------------------------|---------------|
| CEPA Status.....           | Not reviewed. |
| TSCA Inventory Status..... | Not reviewed. |

**SECTION 16: OTHER INFORMATION**

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prepared by .....                                        | Trivalent Data Systems Ltd. <a href="http://www.trivalent.com">http://www.trivalent.com</a> . Information based on suppliers SDS.                                                                                                                                                                                                                                                                                                                                                  |
| Disclaimer.....                                          | Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries for consequential damages, which may result from the use or reliance on any information contained in this form. . |
| Date of the latest revision of the safety ... data sheet | 2019-09-25                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |