



# SAFETY DATA SHEET

## Section 1: Product and Company Identification

<b>Product:</b> MAP-Pro™ Premium Hand Torch Fuel	<b>Company:</b> Worthington Cylinder Corporation
<b>Description:</b> Propylene	<b>Address:</b> 200 Old Wilson Bridge Road
<b>Date Issued:</b> May 1, 2008	Columbus, Ohio 43085
<b>Last Revised:</b> Original	<b>Information:</b> 001-614-438-7960
	<b>Emergency:</b> 001-703-527-3887

## Section 2: Hazardous Ingredients and Exposure Limits

Ingredient	CAS Number	EINECS Number	Weight %	Hazard
Propylene	115-07-1	204-062-1	99.5 – 100	R12 (Extremely flammable)
Propane	74-98-6	200-827-9	0 – 0.5	R12 (Extremely flammable)

## Section 3: Hazards Identification

Extremely flammable and explosive. Liquefied gas under pressure. At high concentrations it acts as a simple asphyxiant by diluting and displacing oxygen, particularly in confined spaces. Direct contact with liquefied product may cause freeze burns and frostbite.

## Section 4: First Aid Measures

**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes while occasionally lifting the eyelids. Seek medical attention.

**Skin Contact:** Remove contaminated clothing. Wash with soap and water. Get medical attention if irritation or redness develops. In case of frostbite, place affected area in warm water or wrap in blankets if warm water is not available. **DO NOT USE HOT WATER.** Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Administer oxygen or artificial respiration if necessary. Seek immediate medical attention.

**Ingestion:** Risk of ingestion is extremely low. Seek immediate medical attention in cases of ingestion or oral exposure.

## Section 5: Fire and Explosion Data

**Flash Point:** -162 °F

**Auto Ignition:** 927 °F

**Lower Explosion Limit:** 2.0% by volume in air

**Upper Explosion Limit:** 11.0% by volume in air

**General Fire Hazards:** Liquid releases vapors that readily form a flammable mixture with air. Dangerous fire and explosion hazard when exposed to heat, sparks or flame. Vapors are heavier than air and may travel long distances to a point of ignition. Container may explode in heat or flame.

**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide and various non-combusted hydrocarbons.

**Extinguishing Media:** Dry chemical, foam, carbon dioxide, Halon or water.



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**Unusual Fire Hazards:** Use extreme caution when fighting liquefied petroleum gas fires. Heated containers may rupture violently and suddenly without warning due to vessel overpressure (BLEVE-boiling liquid expanding vapor explosions). If safe to do so stop the flow of gas and allow the flame to burn out. Extinguishing the flame before shutting off the supply can cause formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Use water to cool equipment, surfaces and containers exposed to fire and excessive heat.

## Section 6: Accidental Release Measures

Remove or shut off all sources of ignition. Evacuate area of all unnecessary personnel. Ventilate the area thoroughly. Vapors are heavier than air and may accumulate in low-lying areas and form explosive mixtures with air.

## Section 7: Handling and Storage

**Handling Precautions:** Keep away from flame, sparks and excessive temperatures. Use only in well-ventilated areas. Follow use instructions fully and carefully. Do not smoke while handling product.

**Storage Requirements:** Store in a cool, dry, well-ventilated area away from sources of ignition, strong oxidizers or other incompatible materials. Post "No Smoking or Open Flame" signs in the storage and use areas. Protect cylinders against physical damage. Do not cut, drill, grind or weld on empty cylinders since they may contain explosive residues. Do not attempt to refill cylinders.

## Section 8: Exposure Control/Personal Protection

**Occupational Exposure Limits:** 500 ppm for propylene (CAS 115-07-1)  
1000 ppm for propane (CAS 74-98-6)

**Engineering Controls:** Good industrial hygiene practice requires that engineering controls be used where feasible to reduce workplace concentrations of hazardous materials.

**Ventilation:** Use adequate ventilation to keep gas and vapor concentrations of this product below the occupational exposure and flammability limits, particularly in confined spaces. Use mechanical ventilation that is explosion proof.

**Respiratory Protection:** Maintain oxygen levels above 19.5% in the workplace. Respirators must be worn if ambient concentrations of contaminants exceed prescribed exposure limits. Seek professional advice prior to respirator selection and use. Select respirator based on its suitability to provide adequate worker protection for given work conditions, level of airborne contamination, and presence of sufficient oxygen.

**Protective Clothing:** Protective clothing should be worn to prevent skin contact. Protective gloves should be worn as required for welding or burning. Use insulated gloves where there is the possibility of liquid contact.

**Eye Protection:** Use safety glasses or goggles as required for welding or burning. Use splash-proof goggles or faceshield where there is the possibility of liquid contact.

## Section 9: Physical and Chemical Properties

**Boiling Point:** -48 °C  
**Melting Point:** -185 °C  
**Specific Gravity:** 0.52 (liquid)  
**Molecular Weight:** 42  
**Appearance:** Colorless gas

**Vapor Pressure:** 109.73 psig @ 21 °C  
**Vapor Density (air=1):** 1.5 @ 0 °C  
**Solubility in Water:** Slight  
**Percent Volatile by Weight:** 100  
**Odor:** Hydrocarbon



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### Section 10: Stability and Reactivity

**Chemical Stability:** Stable

**Hazardous Decomposition Products:** Carbon oxides and various hydrocarbons formed when burned.

**Incompatibility:** Strong oxidizers such as nitrates, perchlorates, chlorine and fluorine.

**Hazardous Polymerization:** Does not polymerize except under special conditions (extreme temperature, pressure, oxidizers).

**Conditions to Avoid:** Sources of heat, sparks or flame.

### Section 11: Toxicological Information

**Overview:** Propylene is an anesthetic and is mildly irritating to the mucous membranes. At high concentrations propylene acts as a simple asphyxiant without significant potential for systemic toxicity. Direct contact with liquefied product may cause freeze burns and frostbite.

**Primary Entry Routes:** Inhalation

**Target Organs:** Respiratory system

**Potential Health Effects:**

- **Inhalation:** Product is an anesthetic at high concentrations. Inhalation may cause central nervous system depression producing dizziness, drowsiness, headache, and similar narcotic symptoms. Extremely high concentrations can cause asphyxiation and death by displacing oxygen from the breathing atmosphere.
- **Eyes:** Vapor is generally non-irritating to the eyes. Contact with liquefied gas or rapidly expanding gases may cause freeze burns and frostbite.
- **Skin:** Vapor is generally non-irritating to the skin. Contact with liquefied gas or rapidly expanding gases may cause freeze burns and frostbite.
- **Ingestion:** Ingestion is not likely.

**Medical Conditions Aggravated by Exposure:** Chronic diseases or disorders of the respiratory system.

**Carcinogenic Effects:** Propylene is not identified as being carcinogenic by the International Agency for Research on Cancer (IARC).

### Section 12: Ecological Information

Propylene is expected to be inherently biodegradable. Propylene is readily degraded by microorganisms and is therefore not expected to bioaccumulate or bioconcentrate in organisms and food chains. Propylene emissions would have practically no adverse effects on plant growth. Not expected to cause serious soil or groundwater contamination due to rapid evaporation.

### Section 13: Disposal Considerations

Do not dispose of any non-empty container. Cylinders should be emptied and returned to a hazardous waste collection point. Empty cylinders still contain flammable vapor.



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### Section 14: Transport Information

Shipping Name: Propylene  
Hazard Class: 2.1 (Flammable Gas)  
ID Number: UN 1077  
Packing Group: Not Applicable  
Marking: Propylene, UN 1077  
Label: Flammable Gas  
Placard: Flammable Gas / UN1077  
Hazardous Substance/RQ: Not Applicable  
Shipping Description: Propylene, 2.1 (Flammable Gas), UN 1077

### Section 15: Regulatory Information

**Classification:** Extremely flammable  
**Symbols:** F+  
**Risk Phrases:** R12 - Extremely flammable  
**Safety Phrases:** S2 - Keep out of reach of children  
S3/9 - Keep in a cool and well ventilated place  
S16 - Keep away from sources of ignition, no smoking  
S36/37/39 - Wear suitable protective clothing, gloves, eye/face protection

### Section 16: Other Information

**Disclaimer:** All information in this Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.