

**Safety Data Sheet**  
According to 1907/2006/EG Regulation, Article 31

Substance: MAP-Pro Premium Hand Torch Fuel

Stand: 25.11.2015 / Rev.-Nr. 03

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product Identifier**

Trade name: Item No.: 16867 / Mapp Gas / 4661261 / MAP-Pro™ Premium Hand Torch Fuel

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Product Use:** Hand Torch Fuel

**Uses Advised Against:** None known.

**1.3 Details of the Supplier of the safety data sheet**

**REFCO Manufacturing Ltd.** Industriestrasse 11 | 6285 Hitzkirch Switzerland

Tel. +41 41 919 72 82 | Fax +41 41 919 72 83

E-Mail: [info@refco.ch](mailto:info@refco.ch)

Original Safety Data Sheet:

Worthington Cylinder Corporation

300 E. Breed St., Chilton, WI 5301

Vereinigte Staaten

E-Mailadresse: Ann.Stiefvater@worthingtonindustries.com

**1.4 Emergency Telephone Number**

Swiss Toxicological Information Centre, CH 8028 Zürich

Notruf 145 oder +41 44 251 51 51

Nicht dringende Anrufe: +41 44 251 66 66

**\* 2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture according to 1272/2008**

**Physical hazards**

Flammable gases	Category 1	H220 - Extremely flammable gas.
Gases under pressure	Liquefied gas	H280 - Contains gas under pressure; may explode if heated.

**2.2 Label Elements**

Labelling according to Directive 1272/2008/EC

Identification No.: 601-011-00-9

Signal word: Danger



EC Symbols:

**Hazard statement:** Extremely flammable gas. Contains gas under pressure; may explode if heated.

**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.

P410+P403 - Protect from sunlight. Store in a well-ventilated place.

**Hazard(s) not otherwise classified (HNOC)**

May displace oxygen and cause rapid suffocation.

**2.3 Other Hazards**

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.



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**\* 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance**

Chemical name	%	CAS-No. / CE-No.	REACH	Index-No.	Einstufung
Propylene	99.5 - 100	115-07-1 204-062-1	-	601-011-00-9	Flam. Gas 1; H220, Press. Gas; H280
Propane	0 – 0.5	74-98-6 200-827-9	-	601-003-00-5	-

Composition comments:

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. FIRST AID MEASURES**

**4.1 Description of First Aid Measures**

- General Information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
- Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control centre immediately.
- Skin Contact: Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. If frostbite occurs, immerse involved area in warm water (between 100 F/38 C and 110 F/43 C, not exceeding 112 F/44 C). Keep immersed for 20 to 40 minutes. Seek medical assistance.
- Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- Ingestion: Ingestion is not a typical route of exposure for gases or liquefied gases.

**4.2 Most important symptoms and effects, both acute and delayed**

Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness.

**4.3 Indication of any immediate medical attention and special treatment needed**

Exposure may aggravate pre-existing respiratory disorders. Treat symptomatically.

**5. FIRE FIGHTING MEASURES**

**General fire hazards:** Extremely flammable gas.

**5.1 Extinguishing Media**

Dry chemical, CO<sub>2</sub>, water spray, fog, or foam.

**Unsuitable Extinguishing Media:** Full water jet.

**5.2 Special hazards arising from the substance or mixture**

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.



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<p><b>5. FIRE FIGHTING MEASURES (Cont.)</b></p> <p><b>5.3 Advice for firefighters</b> Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move container from fire area if it can be done without risk. Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.</p>						
<p><b>6. ACCIDENTAL RELEASE MEASURES</b></p> <p><b>6.1 Personal Precautions, Protective Equipment and Emergency Procedures</b> Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary personnel away.</p> <p><b>6.2 Environmental Precautions</b> Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sanitary sewers, waterways and/or groundwater.</p> <p><b>6.3 Methods and Material for Containment and Cleaning Up</b> Ventilate well, stop flow of gas or liquid if possible. Immediately contact emergency personnel. For waste disposal, see Section 13 of the SDS.</p> <p><b>6.4 Reference to other sections</b> Ensure adequate ventilation. In case of inadequate ventilation, use respiratory protection. Wear appropriate personal protective equipment (See Section 8).</p>						
<p><b>7. HANDLING AND STORAGE</b></p> <p><b>7.1 Precautions for Safe Handling</b> Eliminate all sources of ignition. Wear appropriate personal protective equipment (See Section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Do not breathe gas. Do not get in eyes, on skin, on clothing. Use only with adequate ventilation.</p> <p><b>7.2 Conditions for safe storage, including any incompatibilities</b> Store in accordance with local, regional, national, and international regulations. Secure cylinders in an upright position at all times, close all valves when not in use. Store in a cool, dry, well-ventilated place. Keep container tightly closed and sealed until ready for use. Protect cylinders from damage.</p>						
<p><b>8. EXPOSURE CONTROLS/PERSONAL PROTECTION</b></p> <p>If the American Conference of Governmental Industrial Hygienists (ACGIH) value is provided on this document, it is provided for information only.</p> <p><b>8.1 Control Parameters</b></p> <p style="text-align: center;"><b>Occupational Exposure Limits</b></p> <table border="1"><thead><tr><th>Material</th><th>Type</th><th>mg/m<sup>3</sup></th></tr></thead><tbody><tr><td>Propane (CAS 74-98-6)</td><td>TWA</td><td>1800 mg/m<sup>3</sup> 1000 ppm</td></tr></tbody></table> <p><b>Biological limit values</b> No biological exposure limits noted for the ingredient(s).</p>	Material	Type	mg/m <sup>3</sup>	Propane (CAS 74-98-6)	TWA	1800 mg/m <sup>3</sup> 1000 ppm
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Propane (CAS 74-98-6)	TWA	1800 mg/m <sup>3</sup> 1000 ppm				

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<b>8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Cont.)</b>	
<b>8.1 Control Parameters (Cont.)</b>	
<b>Exposure guidelines</b> Follow standard monitoring procedures.	
<b>Appropriate engineering controls</b> Provide adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.	
<b>8.2 Exposure Controls</b>	
<b>General Information:</b> Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.	
<b>Eye protection:</b>	 Wear approved safety glasses or goggles.
<b>Hand Protection:</b>	 Wear appropriate chemical resistant gloves.
<b>Body Protection:</b>	 Wear protective clothing appropriate for the risk of exposure.
<b>Respiratory</b>	 If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Thermal Hazards</b> Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wear appropriate thermal protective clothing, when necessary.	
<b>General hygiene considerations</b> Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.	
<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>9.1 Information on basic physical and chemical properties</b>	
Appearance	Colorless liquefied gas.
Physical state	Gas.
Form	Compressed liquefied gas.
Color	Colorless
Odor	Hydrocarbon or mercaptan if odorized.
Odor threshold	Not available
pH	Not applicable
Initial Boiling Point and Boiling range	>280°C / 509°F estimated value(s)
Melting point / freezing point	-301 °F (-185 °C)
Flash point	-162.0 °F (-107.8 °C)
Evaporation rate	Not applicable.
Flammability (solid, gas)	Extremely flammable gas.

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<b>* 9. PHYSICAL AND CHEMICAL PROPERTIES (Cont.)</b>	
<b>9.1 Information on basic physical and chemical properties (Cont.)</b>	
Flammability limit - lower	2%
Flammability limit - upper	11%
Vapor pressure	109.73 PSIG (21°C)
Vapor density	1.5 (0°C)
Relative density	0.52 (liquid)
Solubility (water)	384 mg/l - Slightly soluble in water.
Partition coefficient (n-octanol/water)	1.77
Auto-ignition temperature	927 °F (497.22 °C)
Decomposition temperature	Not available.
Viscosity	Not available.
<b>9.2 Other Information</b>	
Molecular weight	42g/mol
VOC (Weight %)	100%
Percent volatile	100%
<b>10. STABILITY AND REACTIVITY</b>	
<b>10.1 Reactivity</b> The product is non-reactive under normal conditions of use, storage and transport.	
<b>10.2 Chemical stability</b> Stable under normal temperature conditions and recommended use.	
<b>10.3 Possibility of Hazardous Reactions</b> Polymerization will not occur.	
<b>10.4 Conditions to Avoid</b> Heat, flames and sparks.	
<b>10.5 Incompatible Materials</b> Strong oxidizing agents. Strong acids. Halogens.	
<b>10.6 Hazardous Decomposition Products</b> Carbon oxides. Hydrocarbons.	
<b>11. TOXICOLOGICAL INFORMATION</b>	
<b>11.1 Information on Toxicological effects</b>	
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	Not likely, due to the form of the product.
<b>Inhalation</b>	High concentrations: Suffocation (asphyxiate) 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.
<b>Skin contact</b>	Contact with liquefied gas may cause frostbite.
<b>Eye contact</b>	Contact with liquefied gas may cause frostbite.

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<b>11. TOXICOLOGICAL INFORMATION (Cont.)</b>	
<b>11.1 Information on Toxicological effects (Cont.)</b>	
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness.
<b>Information on toxicological Effects</b>	
<b>Acute toxicity</b>	High concentration: Suffocation (asphyxiate) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels.
<b>Acute</b>	
Inhalation	
LC50	Mouse 680 mg/l, 2 hours Rat 680 mg/l, 4 hours
<b>Skin corrosion/irritation</b>	Contact with liquefied gas might cause frostbites, in some cases with tissue damage.
<b>Serious eye damage/ eye irritation</b>	Direct contact with liquefied gas may cause eye damage from frostbite.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not classified.
<b>Skin sensitization</b>	Not classified.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Propylene (CAS 115-07-1)	3 Not classifiable as to carcinogenicity to humans.
<b>Reproductive toxicity</b>	Not classified.
<b>Specific target organ toxicity – single exposure</b>	Not classified.
<b>Specific target organ toxicity – repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified
<b>Chronic effects</b>	May cause central nervous system effects.
<b>12. ECOLOGICAL INFORMATION</b>	
<b>12.1 Toxicity</b>	
Not expected to be harmful to aquatic organisms.	
<b>12.2 Persistence and degradability</b>	
The product is readily biodegradable.	
<b>12.3 Bioaccumulative Potential</b>	
The product is not expected to bioaccumulate.	
Partition coefficient n-octanol / water (log K <sub>ow</sub> )	
Propylene (CAS 115-07-1) 1.77 / Propane (CAS 74-98-6) 2.36	
<b>12.4 Mobility in Soil</b>	
May evaporate quickly.	
<b>12.5 Result of PBT and vPvB assessment</b>	
This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.	
<b>12.6 Other Adverse Effects</b>	
None known.	

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<b>13. DISPOSAL CONSIDERATIONS</b>	
<b>13.1 Waste Treatment Methods</b>	
Disposal instructions	Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor 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.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 °F
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.
<b>14. TRANSPORT INFORMATION</b>	
<b>DOT</b>	
UN number	UN1077
UN proper shipping name	Propylene
Transport hazard class(es)	
Class	
Subsidiary risk	-
Packing group	Not applicable
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Special provisions	19, T50
Packaging exceptions	306
Packaging non bulk	304
Packaging bulk	314, 315
<b>IATA</b>	
UN number	UN1077
UN proper shipping name	Propylene
Transport hazard class(es)	
Class	
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable
Environmental hazards	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
<b>IMDG</b>	
UN number	UN1077
UN proper shipping name	Propylene
Transport hazard class(es)	
Class	
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable
Environmental hazards	No
Marine pollutant	No
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.



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**\* 15. REGULATORY INFORMATION**

US federal regulations:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Propane (CAS 74-98-6) LISTED

Propylene (CAS 115-07-1) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

Hazard categories Immediate	Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - Yes
	Pressure Hazard - Yes
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**

Yes

**SARA 313 (TRI reporting)**

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Propylene	115-07-1 99.5 -	100

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Other regulatory information**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List** Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Propane (CAS 74-98-6)

Propylene (CAS 115-07-1)

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)** Hazardous substance

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US. Massachusetts RTK - Substance List**

Propane (CAS 74-98-6)

Propylene (CAS 115-07-1)

**US. New Jersey Worker and Community Right-to-Know Act**

Propane (CAS 74-98-6)

Propylene (CAS 115-07-1)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Propane (CAS 74-98-6)

Propylene (CAS 115-07-1)

**US. Rhode Island RTK**

Propane (CAS 74-98-6)

Propylene (CAS 115-07-1)

**US. California Proposition 65**

Not Listed.





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**\* 15. REGULATORY INFORMATION (Cont.)**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
European	Europe Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippine	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes
US & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**\* 16. OTHER INFORMATION**

All information in this Material 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.

**\* Data compared to the previous version altered.**

The asterisk (\*) on the left side indicate the respective changes from the previous version.

**End of the document**