



Powers Trak-It Fuel Cell

MSDS Preparation Date (mm/dd/yyyy): 07/08/2013

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MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product identifier : **Powers Trak-It Fuel Cell**

Product Code(s) : None assigned.

Product Use : Fuel cell for gas combustion tool.

Chemical Family : Mixture of: Hydrocarbon gases

Supplier's name and address:

Manufacturer's name and address:

Powers Fasteners, Inc.

Refer to Supplier

2 Powers Lane
Brewster, NY, USA
10509

Information Telephone # : (914) 235-6300 (8am - 8pm EST, Monday - Thursday; 8am - 7pm EST, Friday)

24 Hr. Emergency Tel # : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

SECTION 2 - HAZARDS IDENTIFICATION

Classification : OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200). Hazardous classification:
Extremely flammable gas;
Acute Health Hazard.

WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). WHMIS classification:
Class A (Pressurized containers);
Class B1 (Flammable Gases).

Emergency Overview : Colourless gas. Mildly olefinic odor.
DANGER! Extremely flammable gas. Contents under pressure. May cause flash fire. Asphyxiant, can replace oxygen in confined area. Inhalation may cause respiratory irritation and central nervous system depression. Contact with liquid may cause frostbite.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation : Excessive inhalation of vapours can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation. Asphyxiant, can replace oxygen in confined area. In extremely high concentrations, product may act as an asphyxiant and cause increased breathing and pulse rates, fatigue and unconsciousness.

Skin : Not an irritant. Contact with liquid may cause frostbite. Symptoms of frostbite may include numbness, prickling and itching.

Eyes : Gas may cause mild irritation. Causes frostbite burns to eyes.

Ingestion : Not an expected route of entry under normal conditions of use.

Effects of long-term (chronic) exposure

: Prolonged exposure may cause nasal irritation. Repeated or prolonged exposure may result in kidney effects.

Carcinogenic status : See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards : See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects

: See ECOLOGICAL INFORMATION, Section 12.



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SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>Wt.%</u>
Propylene	115-07-1	55.00 - 70.00
1-Butene	106-98-9	30.00 - 45.00

SECTION 4 - FIRST AID MEASURES

- Inhalation** : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. When symptoms persist or in all cases of doubt seek medical advice.
- Skin contact** : Flush affected skin with gently flowing lukewarm water for at least 20 minutes. Treat for frostbite if necessary by gently warming affected area. Seek immediate medical attention/advice.
- Eye contact** : Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.
- Ingestion** : Not an expected route of entry.
- Notes For Physician** : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

- : Extremely flammable gas. Closed containers are contained under pressure and may explode if exposed to excess heat for a prolonged period of time. Vapours are heavier than air and collect in confined and low-lying areas. Vapour can travel considerable distance and flashback to a source of ignition. May be sensitive to static discharge. May polymerize on contact with catalysts, at elevated temperatures and pressure.

Flammability classification (OSHA 29 CFR 1910.1200)

- : Flammable gas

Oxidizing properties

- : None known.

Explosion data: Sensitivity to mechanical impact / static discharge

- : May be sensitive to static discharge. Not expected to be sensitive to mechanical impact.

Suitable extinguishing media : Dry chemical, foam, carbon dioxide and water fog.

Special fire-fighting procedures/equipment

- : Leaking gas fire: do not extinguish, unless leak can be stopped safely. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. If feasible, stop the flow of gas. Shield personnel to protect from venting or rupturing containers. Water spray may be useful in cooling equipment exposed to heat and flame.

Hazardous combustion products

- : Carbon oxides; irritating fumes and smoke.

NFPA Rating

0 - Minimal 1 - Slight 2 - Moderate 3 - Serious
: *Health:* 1 *Flammability:* 4 *Instability:* 1 *Special Hazards:* None

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.



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pH : N/Ap
Boiling point : - 6.25°C (20.75°F) (1-Butene) **Specific gravity** : 0.5541
Melting/Freezing point : N/Av **Coefficient of water/oil distribution** : N/Av
Vapour pressure (mmHg @ 20° C / 68° F) : 676 kPa (96 psig) (6.62 bar) @ 21.1°C (70°F) **Solubility in water** : practically insoluble (< 0.1% @ 21.1°C / 70°F)
Vapour density (Air = 1) : > 1.5 **Evaporation rate (n-Butyl acetate = 1)** : N/Ap (gas)
Volatile organic Compounds (VOC's) : N/Av **Volatiles (% by weight)** : 100%
Flash point : - 108°C (- 162°F) **Auto-ignition temperature** : 385°C (725°F) (1-Butene)
Flash point Method : N/Av **Upper flammable limit (% by vol.)** : 10% (1-Butene)
Lower flammable limit (% by vol.) : 1.4% (Propylene) **Flashback observed** : N/Ap
Flame Projection Length : N/Ap
Viscosity : N/Ap
Absolute pressure of container : 1800 kPa (18 bar) @ 50°C (122°F)
 Critical temperature: 91.8°C (197.24°F) (Propylene); 146.4°C (295.52°F) (1-Butene)

SECTION 10: STABILITY AND REACTIVITY

Stability and reactivity : Stable when stored as a liquid in steel tanks under its own vapor pressure.
Hazardous polymerization : May polymerize on contact with catalysts, at elevated temperatures and pressure. Unstable with heat or contamination. Closed containers may explode with conditions of extreme heat.
Conditions to avoid : Keep this product away from heat, sparks, flame, and other sources of ignition (e.g. pilot lights, electric motors, static electricity). Avoid contact with incompatible materials. Keep away from direct sunlight. Do not use in areas without adequate ventilation.

Materials To Avoid And Incompatibility

: Strong oxidizing agents; Alkenes; Metal salts; halogens; Acids; Nitrogen oxides.

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs : Lungs, eyes, skin, central nervous system.
Routes of exposure : *Inhalation:* YES *Skin Absorption:* NO *Skin & Eyes:* YES *Ingestion:* NO
Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredients	LC₅₀(4hr)	LD₅₀	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Propylene	> 50 000 ppm	N/Ap (gas)	N/Ap (gas)
1-Butene	> 10 000 ppm	N/Ap (gas)	N/Ap (gas)

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects : Not expected to have other reproductive effects.
Teratogenicity : Not expected to be a teratogen.
Mutagenicity : Contains: Propylene. There is some very limited information that Propylene may cause mutagenic effects, based on animal data.
Epidemiology : Not available.



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- Sensitization to material** : Not expected to be a skin or respiratory sensitizer.
Synergistic materials : Not available.
Irritancy : Not an irritant.
other important hazards : None known.
Conditions aggravated by overexposure
: Pre-existing skin, eye, respiratory and central nervous system disorders.

SECTION 12 - ECOLOGICAL INFORMATION

- Ecotoxicity** : No data is available on the product itself.

See the following tables for individual ingredient ecotoxicity data. Measured ecotoxicity data are not available for the aquatic toxicity endpoints. Butenes are gases at standard temperature and pressure and are expected to partition primarily to air, therefore aquatic toxicity tests may not be relevant.

Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Propylene	115-07-1	N/Ap	N/Ap	N/Ap
1-Butene	106-98-9	N/Ap	N/Ap	N/Ap

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Propylene	115-07-1	N/Ap	N/Ap	N/Ap
1-Butene	106-98-9	N/Ap	N/Ap	N/Ap

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Propylene	115-07-1	N/Ap	N/Ap	N/Ap
1-Butene	106-98-9	N/Ap	N/Ap	N/Ap

- Mobility** : No data is available on the product itself.
Persistence : No data is available on the product itself. Contains: Propylene; 1-Butene. Propylene and 1-Butene are expected to be degradable.
Bioaccumulation potential : No data is available on the product itself. Contains: Propylene; 1-Butene. 1-Butene has a Bioconcentration Factor (BCF) of 14, and its Log Kow value is 2.4, indicating its potential to bioaccumulate is low. Propylene has a Bioconcentration Factor (BCF) of 5, and its Log Kow value is 1.77, indicating its potential to bioaccumulate is low.

Other Adverse Environmental effects

- : Contains: Propylene; 1-Butene.
Because of the relatively short half-lives of propylene and 1-Butene in the atmosphere and the low environmental concentrations typically found, their contribution to potential global warming can be considered minor. The ozone depletion potential of these substances is negligible.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal** : Handle waste according to recommendations in Section 7.



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Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14: TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	UN1965	Hydrocarbon gas mixture, liquefied, n.o.s.	2.1	none	
49CFR/DOT Additional information	For limited quantity shipping information, refer to 49 CFR Section 173.306.				
TDG	UN1965	HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. (Propylene; 1-Butene)	2.1	none	
TDG Additional information	May be shipped as a LIMITED QUANTITY in containers no larger than 125 mL, in packages not exceeding 30 kg gross mass. Under the TDGR, refer to Section 1.17 for additional exemption information, if shipping under this exemption.				
ICAO/IATA	UN1965	Hydrocarbon gas mixture, liquefied, n.o.s. (Propylene; 1-Butene)	2.1	none	
ICAO/IATA Additional information	This material is forbidden on 'Passenger and Cargo Aircraft'. ICAO / IATA cargo aircraft only. Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.				

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Propylene	115-07-1	Yes	None.	None.	Yes	1%
1-Butene	106-98-9	Yes	None.	None.	No	N/Ap

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard; Fire Hazard; Pressurized gas hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:



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<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Propylene	115-07-1	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
1-Butene	106-98-9	No	N/Ap	No	Yes	No	No	Yes	No

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16 - OTHER INFORMATION

HMIS Rating : * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious
Health: 1 *Flammability:* 4 *Reactivity:* 1

Legend : ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
CA: California
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
DOT: Department of Transportation
EINECS: European Inventory of Existing Commercial chemical Substances
ENCS: Existing and New Chemical Substances
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
IOC: Inventory of Chemicals
ISHA: Industrial Safety and Health Act
ISHL: Industrial Safety Health Law
KECI: Korean Existing Chemicals Inventory
KECL: Korean Existing Chemicals List
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MN: Minnesota
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PICCS: Philippine Inventory of Chemicals and Chemical Substances



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- PEL: Permissible exposure limit
- RCRA: Resource Conservation and Recovery Act
- RI: Rhode Island
- RTECS: Registry of Toxic Effects of Chemical Substances
- SARA: Superfund Amendments and Reauthorization Act
- STEL: Short Term Exposure Limit
- TDG: Canadian Transportation of Dangerous Goods Act & Regulations
- TLV: Threshold Limit Values
- TPQ: Threshold Planning Quantity
- TSCA: Toxic Substance Control Act
- TWA: Time Weighted Average
- WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2013.
- 2. International Agency for Research on Cancer Monographs, searched 2013.
- 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2013 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.
- 5. US EPA Title III List of Lists - October 2012 version.
- 6. California Proposition 65 List - July 5, 2013 version.

<p><u>Prepared for:</u> Powers Fasteners, Inc 2 Powers Lane Brewster, NY, USA 10509 Telephone: 914-235-6300 Direct all enquiries to: Powers Fasteners, Inc</p>	
<p><u>Prepared by:</u> ICC The Compliance Center Inc. http://www.thecompliancecenter.com</p>	

DISCLAIMER OF LIABILITY

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