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Safety Data Sheet
POWERS TRAK-IT FUEL CELL

1. Identification

Product identifier	POWERS TRAK-IT FUEL CELL
Product code	N.Av.
Other means of identification	None.
Recommended use of the chemical and restrictions on use	Fuel Cell for gas combustion tool.
Manufacturer	Powers Fasteners, Inc. 2 Powers Lane Brewters, NY, USA 10509 Tel. 800-524-3244 Fax 877-871-1965 www.powers.com info@powers.com
Emergency phone number	Chemtrec : 1-800-424-9300 (Within Continental USA); Chemtrec : 703-527-3887 (Outside USA).

2. Hazard identification

Summary	Extremely flammable gas. May cause flash fire. Keep away from heat, sparks and open flame. Content under pressure, do not puncture, cut, heat or throw container. Do not breathe gas. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.

WHMIS 2015/OSHA HCS 2012/GHS

Flammable gases (Category 1)
Gases under pressure (Liquefied gas)
Simple Asphyxiant

DANGER

H220: Extremely flammable gas
H280: Contains gas under pressure; may explode if heated
H29X : May displace oxygen and cause rapid suffocation
P210: Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P261: Avoid breathing gases.
P271: Use only outdoors or in a well-ventilated area.
P304+340+P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
P377: Leaking gas fire: do not extinguish unless leak can be stopped safely.
P381: Eliminate all ignition sources if safe to do so.
P410+403: Protect from sunlight. Store in a well-ventilated place.
P501: Dispose of contents and container to a licensed chemical disposal agency in accordance with local, regional and national regulations.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Propylene	115-07-1	55 - 70 %
1-Butene	106-98-9	30 - 45 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Flush with water for at least 15 minutes. Bathe (do not rub) any frostbite with lukewarm (not hot) water. If a problem develops or persists, seek medical attention.
Eye contact	Flush with water for at least 15 minutes. Remove contact lenses. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	Not a likely route of exposure. Never give anything by mouth if victim is unconscious or convulsing. If a problem develops or persists, seek medical attention.
Other	No information available.
Symptoms	Contact with liquefied gas may cause frostbite. High concentrations may cause central nervous system depression characterized by headache, dizziness, vertigo, nausea, drowsiness and fatigue. Inhalation in large amounts may cause asphyxiation.
Notes to the physician	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	ABC fire extinguishing, alcohol resistant foam, dried powder, carbon dioxide (CO_2). Do not use direct water jet.
Specific hazards arising from the chemical	Extremely flammable gas. Content under pressure, containers may explode under fire conditions. Vapors are heavier than air and may travel to an ignition source distant from the material handling point. May be sensitive to static discharge. May polymerize on contact with catalysts, at elevated temperatures and pressure.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers. Stop leak, if it's possible to do so without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry in sewer and other enclosed area. For a large spillage, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Ventilate the area well. Remove sources of ignition. Stay against the wind spill. Stop leak, if it's possible to do so without risk. Use non-sparkling and antistatic tools. Isolate for ½ mile (600 metres) in all directions if the tank or tank car is involves in fire. If necessary, reduce the concentration of gas or vapor in air with water fog and contains run-off.

7. Handling and storage

Precautions for safe handling	Flammable Gas. Keep away from heat, sparks and open flame. Use non-sparkling and antistatic tools. Content under pressure, do not puncture, cut, heat or throw container. Use only in well ventilated area. Avoid contact with skin and eyes. Do not breathe gas. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep in the workplace only the quantities necessary for the work being performed. The compressed gas cylinders must be protected from strong shocks and you should never use a damaged bottle. Keep containers tightly closed when not used. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toilet articles. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). Store tightly closed and in properly labelled container in a dry, cool and well ventilated place. Store away from oxidizing materials and incompatible materials (see section 10). Keep away from direct sunlight and heat.
Storage temperature	<40°C (104°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	No IDLH value is reported.

Propylene		Simple asphyxiant		RSST
			500 ppm	ACGIH , BC, ON
1-Butene	TWA (8h)		250 ppm	ACGIH , ON

Appropriate engineering controls	Provide sufficient mechanical ventilation (general and/or local exhaust) to keep the airborn concentrations of vapors, mists, aerosols or dust below their respective occupational exposure limits.
Individual protection measures	
Eye	If risk of contact with eyes wear chemical splash goggles.
Hands	To avoid frostbite, wear gloves suitable to the hazards. Wear thermal insulated gloves or leather gloves.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code.
Respiratory	Respiratory protection is not required in normal use. Respiratory protection equipment (PPE) must be selected, fitted, maintained and inspected in accordance with regulations and CSA Standard Z 94.4 and approved by NIOSH / MSHA. For concentrations higher than the Threshold Limit Value, wear any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.
Feet	Not required in normal use.

Leather Glove

9. Physical and chemical properties

Physical state	Liquified gas	**Flammability**	Flammable.
Colour	Colourless	**Flammability limits**	1.4 to 10%
Odour	Mild olefinic odor	**Flash point**	-108°C (-162.4°F) Pensky-Marten Closed cup
Odour threshold	23 ppm	**Auto-ignition temperature**	385°C (725°F)
pH	N/Ap.	**Sensibility to electrostatic charges**	Yes
Melting point	N/Av.	**Sensibility aux sparks and/or friction**	No
Freezing point	N/Av.	**Vapour density**	>1.5 (Air = 1)
Boiling point	-47 to -6.3°C (-52.6 to 20.7°F)	**Relative density**	0.5541 kg/L (Water = 1)
Solubility	Slightly soluble in water.	**Partition coefficient n-octanol/water**	N/Av.
Evaporation rate	N/Ap.	**Decomposition temperature**	N/Av.
Vapour pressure	676kPa (5070 mm Hg) @ 21.1°C (70°F)	**Viscosity**	N/Ap.
Percent Volatile	100%	**Molecular mass**	N/Ap.

N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established

10. Stability and reactivity

Reactivity	Content under pressure, containers may explode under fire conditions.
Chemical stability	Stable when stored as a liquid in steel tank under its own vapor pressure.
Possibility of hazardous reactions (including polymerizations)	May polymerize on contact with catalysts, at elevated temperatures and pressure. Unstable under heat or contamination.
Conditions to avoid	Keep away from heat, sparks and open flame. Avoid contact with incompatible materials. Avoid sunlight and heat. Do not use in area without adequate ventilation.
Incompatible materials	Strong oxidizing agents (such as nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong acids, metal salts, halogens, nitrogen oxides.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Propylene Inhalation 658 mg/l/4h Rat LC50 >50000 ppm/4h Rat LC50 1-Butene Inhalation >10000 ppm/4h Rat LC50
Likely routes of exposure	Inhalation.

Delayed, immediate and chronic effects	**Eye contact**	Contact with liquefied gas may cause frostbite. May cause redness and slight irritation of the eyes. Eye Irritation, Rabbit: tests performed with each ingredient of this mixture gave not irritating to slightly irritating results.
	Skin contact	Contact with liquefied gas may cause frostbite. Skin Irritation, Rabbit : tests performed with each ingredient of this mixture gave not irritating results.
	Inhalation	In the workplace, the product is rapidly absorbed by respiratory tract. Inhalation of gas may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. Inhalation in large amounts may cause asphyxiation. The severity of symptoms may vary depending on exposure conditions.
	Ingestion	Not a likely route of exposure.
	Respiratory or skin sensitization	Ingredients present at levels greater than or equal to 0.1% of this product are skin or respiratory sensitizers.
	IRAC/NTP Classification	No ingredients listed.
	Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.
	Mutagenicity	Negative results were obtained using Propylene in in vivo mutagenicity tests using somatic cells (ACGIH (2006)). Regarding in vitro test results, Ames tests (propylene gas exposure) gave positive results (NTP DB) while mouse lymphoma assays (gas exposure) yielded both positive and negative results (IARC vol.60 (1994), ACGIH (2006)), which makes interpretation of the outcomes difficult.
	Reproductive toxicity	This material is not known to cause effects on reproduction.
	Specific target organ toxicity - single exposure	No target organ is listed.
	Specific target organ toxicity - repeated exposure	No target organ is listed.
Interactive effects	N,N-dimethylnitrosamine.	
Other information	The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20000 ppm/4h. This value is not classified according to WHMIS 2015 and OSHA HCS 2012.	

12. Ecological information

Ecological toxicity	Fish LC50 N/Ap.
Persistence	No persistent in environment.
Degradability	The product in air rapidly decomposed by photochemical processes, mainly through oxidation by hydroxyl free radicals as well as some decomposition by direct photolysis. Propylene and 1-Butene have a short half-life in the atmosphere.
Bioaccumulative potential	1-Butene has a Bioconcentration Factor (BCF) value of 14, and its Log Kow value is 2.4, indicating its potential to bioaccumulate is low. Propylene has a Bioconcentration Factor (BCF) value of 5, and its Log Kow value is 1.77, indicating its potential to bioaccumulate is low.
Mobility in soil	The gaseous product is poorly soluble in water; there is little partition in soil and sediment. It mainly end up in the atmosphere.
Other adverse effects	This chemical does not deplete the ozone layer.

13. Disposal considerations

Container	Important! Prevent waste generation. Use in full. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.

14. Transport information

UN Number	UN 1965
UN Proper Shipping Name	HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. (Propylene, 1-Butene)
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	No information available.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 2.1
Packing group	
Emergency response guidebook 2012	115
IMO/IMDG - International Maritime Transport	
Classification	UN 1965. HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. (Propylene, 1-Butene). Class 2.1 Emergency schedules (EmS-No) F-D, S-U
IATA - International Air Transport Association	
Classification	UN 1965. HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. (Propylene, 1-Butene). Class 2.1 This material is forbidden on Passenger and Cargo Aircraft.

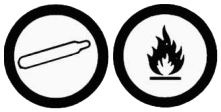
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.

15. Regulatory information

Other regulations	CANADA : - Canada DSL and NDSL: All ingredients are listed in the Domestic Substances List (DSL). - List of Toxic Substances Managed Under CEPA 1999 (annexe 1, Canadian Environmental Protection Act): Propylene (CAS no 115-07-1). - Canadian National Pollutant Release Inventory Substances (NPRI): Propylene (CAS no 115-07-1). Butene (all isomers). UNITED STATE OF AMERICA: - Toxic Substance Control Act (TSCA) : All ingredients are listed in the TSCA Inventory. - EPCRA Section 313 Toxic Chemicals: Propylene (CAS no 115-07-1). - EPCRA Section 302/304 Extremely Hazardous Substances: No material is listed. - CERCLA Hazardous Substances:

No material is listed.
- Clean Air Act (CAA 112b) HON - Hazardous Organic National Emission Air Pollutants:
No material is listed.
- Clean Air Act (CAA 112b) HAP - Hazardous Air Pollutants:
No material is listed.
- CAA 112(r) Regulated Chemicals for Accidental Release Prevention:
Propylene (CAS no 115-07-1).
Butene (CAS no 106-98-9).
- Clean Water Act (CWA) 311:
No material is listed.
- Clean Air Act (CAA) 111:
Propylene (CAS no 115-07-1).
Butene (CAS no 106-98-9).
- California Proposition 65:
No material is listed.

WHMIS 1988



A B1

Class A : Compressed Gas
Class B1 : Flammable Gas

HMIS

NFPA

16. Other information

Date (YYYY-MM-DD)	Powers Fasteners, Inc. 2015-09-03
Version	01
Other information	REFERENCES: - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php - Service du répertoire toxicologique de la Commission de la santé et de la sécurité du travail (CSST), http://www.reptox.csst.qc.ca - TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/ - NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html - OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, http://webnet.oecd.org/HPV/UI/Search.aspx ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: RÃ¨glement sur la santÃ© et la sÃ©curitÃ© du travail (QuÃ©bec) GHS: Globally Harmonized System

IARC: International Agency for Research on Cancer
IDLH: Immediately Dangerous to Life or Health
STEL: Short Term Exposure Limit (15 min)
TWA: Time Weighted Averages
WHMIS: Workplace Hazardous Materials Information System