

Issue Date 11-Mar-1999

Revision Date 9 March-2016

Version 1

## 1. IDENTIFICATION

**Product Identifier**

**Product Name** Giga Power

**Other Means of Identification**

**SDS #** SP-001

**UN/ID No** UN2037  
**Synonyms** Isobutane/Propane Mixture

**Recommended Use of the Chemical and Restrictions on Use**

**Recommended Use** Fuel.

**Details of the Supplier of the Safety Data Sheet**

**Supplier Address**  
 Snow Peak USA, Inc.  
 410 NW 14th Ave  
 Portland, OR 97209

**Emergency Telephone Number**

**Company Phone Number** 1-503-697-3330  
**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
 1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Classification**

Germ cell mutagenicity	Category 1B
Flammable gases	Category 1
Gases under pressure	Liquefied gas

**Signal Word**

**Danger**

**Hazard Statements**

Extremely flammable,  
 Contents under pressure



**Appearance** Colorless gas

**Physical State** Liquefied gas

**Odor** Faint, hydrocarbon

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 Eliminate all ignition sources if safe to do so  
 Leaking gas fire: Do not extinguish, unless leak can be stopped safely

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place  
 Protect from sunlight. Store in a well-ventilated place

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards Not Otherwise Classified (HNOC)**

Not Applicable

**Other Information**

Not Applicable

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** Isobutane/Propane Mixture.

Chemical Name	CAS No	Weight-%
Isobutane	75-28-5	85
Propane	74-98-6	15

### 4. FIRST AID MEASURES

**First Aid Measures**

**General advice** IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

**Inhalation** Remove to fresh air. If symptoms persist, call a physician. If breathing is irregular or stopped, administer artificial respiration.

**Eye Contact** In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If symptoms persist, call a physician.

**Ingestion** Not an expected route of exposure.

**Skin Contact** Flush with warm, running water for 15 minutes if skin irritation occurs. Get medical attention if symptoms occur.

**Most Important Symptoms and Effects, both Acute and Delayed**

**Symptoms** May cause irritation, redness and pain. Contact will cause irritation and redness to exposed areas. Harmful if inhaled in large quantities.

**Indication of any Immediate Medical Attention and Special Treatment Needed**

**Note to Physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

### **Specific Hazards Arising from the Chemical**

Allow contents of canister to burn, and protect surrounding area with appropriate fire protection. Containers may rupture in the heat of a fire.

**Hazardous combustion products** Carbon oxides. Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

**Sensitivity to Mechanical Impact** Not sensitive.

**Sensitivity to Static Discharge** Gas mixture can ignite of contact with static electricity.

### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### **Personal Precautions, Protective Equipment and Emergency Procedures**

<b>Personal Precautions</b>	Use personal protection recommended in Section 8. Remove all sources of ignition. Take precautionary measures against static discharges. Ventilate affected area. Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
<b>Other Information</b>	Readings must indicate levels of vapors are below 10% of the LEL before emergency personnel are permitted to enter the area. Monitoring must indicate levels of components are lower than those listed in Section 8 and oxygen is above 19.5% before response is considered complete.
<b>For Emergency Responders</b>	Evacuate unprotected personnel from area. Wear self-contained breathing apparatus and fire resistant gear.
<b>Environmental Precautions</b>	See Section 12 for additional ecological information.

### **Methods and Material for Containment and Cleaning Up**

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so. Large spills should be handled by trained emergency response personnel.
<b>Methods for Cleaning Up</b>	Use only non-sparking tools.

## 7. HANDLING AND STORAGE

### **Precautions for Safe Handling**

<b>Advice on Safe Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Do not smoke. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Avoid inhalation of vapors or dusts. Do not handle until all safety precautions have been read and understood. Avoid inhalation of dusts or vapors. Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use personal protective equipment as required.
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**Conditions for Safe Storage, Including any Incompatibilities**

**Storage Conditions** Protect from sunlight. Store locked up. Store in a well-ventilated place. Store away from ignition sources and incompatible materials. Store material away from exits and heavily trafficked areas.,

**Packaging Materials** Do not puncture container. Ensure all containers are correctly labeled.

**Incompatible Materials** Strong oxidizers.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isobutane 75-28-5	TWA: 1000 ppm	-	TWA: 800 ppm TWA: 1900 mg/m <sup>3</sup>
Propane 74-98-6	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup> (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m <sup>3</sup>	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>

**Appropriate Engineering Controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits.

**Individual Protection Measures, such as Personal Protective Equipment**

**Eye/Face Protection** No protective equipment is needed under normal use conditions.

**Skin and Body Protection** No protective equipment is needed under normal use conditions.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas. Self-contained apparatus must be worn during emergency responses in confined spaces, or in areas in which the oxygen level is 19.5% or is unknown.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Take off all contaminated clothing and wash it before reuse. Avoid contact with skin, eyes or clothing. Regular cleaning of equipment, work area and clothing is recommended. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood. Avoid breathing (dust, vapor, mist, gas).

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on Basic Physical and Chemical Properties**

<b>Physical State</b>	Liquefied gas	<b>Odor</b>	Faint, hydrocarbon
<b>Appearance</b>	Colorless gas	<b>Odor threshold</b>	Not determined
<b>Color</b>	Colorless		

**Property** Values Remarks • Unless otherwise specified, the following information is for isobutane, the main component of this gas mixture.

<b>pH</b>	Not determined
<b>Melting point/freezing point</b>	Not determined
<b>Boiling point/boiling range</b>	-11.72 °C / 10.9 °F
<b>Flash point</b>	-83 °C / -117 °F
<b>Evaporation rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Flammable gas

**Flammability limits in air**

<b>Upper flammability limits</b>	8.4%	
<b>Lower flammability limit</b>	1.8%	
<b>Vapor pressure</b>	45.4 psia	
<b>Vapor density</b>	2.064	(Air=1)
<b>Specific gravity</b>	Not determined	
<b>Water solubility</b>	(13 cm <sup>3</sup> )/(0.1 kg of water)	
<b>Solubility in other solvents</b>	Not determined	
<b>Partition coefficient</b>	Not determined	
<b>Autoignition temperature</b>	462 °C / 864 °F	
<b>Decomposition temperature</b>	Not determined	
<b>Kinematic viscosity</b>	Not determined	
<b>Dynamic viscosity</b>	Not determined	
<b>Explosive properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	

**Other Information****10. STABILITY AND REACTIVITY****Reactivity**

Not reactive under normal conditions

**Chemical Stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**

Reacts with strong oxidizers.

**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid**

Contact with incompatible materials. Keep away from sources of ignition — No smoking.

**Incompatible Materials**

Strong oxidizers.

**Hazardous Decomposition Products**

Carbon oxides. Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

**11. TOXICOLOGICAL INFORMATION****Information on Likely Routes of Exposure**

<b>Product Information</b>	May cause genetic defects
<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Eye Contact</b>	Avoid contact with eyes.
<b>Skin Contact</b>	Not an expected route of exposure.
<b>Ingestion</b>	Not an expected route of exposure.

**Component Information**

<b>Chemical Name</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
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Isobutane 75-28-5	-	-	= 658 mg/L ( Rat ) 4 h
Propane 74-98-6	-	-	= 658 mg/L ( Rat ) 4 h

**Information on Physical, Chemical and Toxicological Effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure**

**Germ cell mutagenicity** May cause genetic defects.

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical Measures of Toxicity- Product**

Not determined

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (inhalation-gas) 287208 mg/l  
ATEmix (inhalation-vapor) 658 mg/l

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

**Persistence and Degradability**

The gases will rapidly dissipate in the atmosphere.

**Bioaccumulation**

This material is not expected to significantly bioaccumulate.

**Mobility**

The gases will rapidly dissipate in the atmosphere.

Chemical Name	Partition coefficient
Isobutane 75-28-5	2.88
Propane 74-98-6	2.3

**Other Adverse Effects** Not determined

## 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances

### DOT

**UN/ID No** UN2037  
**Proper Shipping Name** Receptacles, small, containing gas (gas cartridges)  
**Hazard Class** 2.1

### TDG

**UN/ID No** UN1075  
**Proper Shipping Name** Petroleum gases, liquefied  
**Hazard Class** 2.1

### IATA

**UN/ID No** UN2037  
**Proper Shipping Name** Receptacles, small, containing gas (gas cartridges)  
**Hazard Class** 2.1

### IMDG

**UN/ID No** UN2037  
**Proper Shipping Name** Receptacles, small, containing gas (gas cartridges)  
**Hazard Class** 2.1

## 15. REGULATORY INFORMATION

### International Inventories

#### Legend:

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*

*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

### US Federal Regulations

### SARA 311/312 Hazard Categories

### US State Regulations

### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Isobutane 75-28-5	X	X	X
Propane 74-98-6	X	X	X

**U.S. EPA Label Information**

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b> 1	<b>Flammability</b> 4	<b>Instability</b> 0	<b>Special Hazards</b> Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b> 1	<b>Flammability</b> 4	<b>Physical Hazards</b> 0	<b>Personal Protection</b> Not determined

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**Revision Note**

New format

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**