SECTION 1: IDENTIFICATION

1.1 Product Identifier	Trade Name – Dine-a-Heat®, Butane Fuel
1.2 Common Names or Synonyms	Butane fuel
1.3 Recommended use of the chemical & restrictions on use	Potable gas appliances
1.4 Supplier's name, address & telephone	Dine-a-Heat® Le-Jo Enterprises, Inc. 765 Pike Springs Road Phoenixville, PA 19460 484-921-9000 www.lejo.com
1.5 Supplier's emergency phone number	CHEMTREC 800-424-9300 – NORTH AMERICA CHEMTREC 703-527-3887 - WORLDWIDE

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Hazard classification of the substance/mixture

- The classification is according to the latest editions of the EU-lists, and extended by company and literature data
- The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company

2.2 Signal word and label elements

Word	Symbol
Danger	 **GHS02 Flame**
Extremely flammable	 **R12 Extremely Flammable**

H220 Extremely Flammable gas
H280 Contains gas under pressure, may explode if heated

WHMIS - Symbols

B1 - Flammable gas
A – Compressed gas

NFPA ratings (scale 0-4)

Health = 2
Fire = 4
Reactivity = 0

HMIS ratings (scale 0-4)

Health = 2
Fire = 4
Reactivity = 1

2.3 Hazard statements

See above

2.4 Other hazards/statements

Precautionary statements & responses:

- P210: Keep away from heat/spark/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

Health Risks: The most significant routes of overexposure for this product is by inhalation. The symptoms of overexposure are described in the following	
Inhalation	May cause respiratory tract irritation; May cause headaches, drowsiness, or dizziness
Skin contact	Gas vapors are not irritating; Freeze burns are possible if skin is in contact with liquid
Eye contact	Gas vapors are not irritating; Freeze burns are possible if eyes come in contact with liquid
Ingestion	No significant adverse effects are anticipated under normal conditions; Liquid can cause freeze burns

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Information of chemical ingredients; trade secret claims

Butane		**Dimethyl sulfide**	
CAS	106-97-8	**CAS**	75-18-3
EINECS	203-448-7	**EINECS**	Not listed
Hazard	Flam. Gas 1, Press. Gas	**Hazard**	Not classified
Weight	95%	**Weight**	<0.1%

SECTION 4: FIRST AID MEASURES

4.1 Important symptoms/effects, acute & delayed

SYMPTOMS OF POISONING MAY EVEN OCCUR AFTER SEVERAL HOURS; THEREFORE MEDICAL OBSERVATION FOR AT LEAST 48 HOURS AFTER THE ACCIDENT – Symptoms or effects, both acute and delayed:

4.2 Required Treatments

Eye contact If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.

Skin contact Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

Inhalation If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

Ingestion If product is swallowed, call physician or poison center immediately. If professional advice is not available, do not induce vomiting. Never induce vomiting or give dilutents (milk or water) to someone who is unconscious, having convulsions, or who cannot

	Hazards	swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional. Pre-existing respiratory system problems may be aggravated by prolonged contact; exposure to respiratory system may cause irritation;
Indication of Immediate Medical Attention & Special Treatment	Treat symptoms and eliminate overexpose	

SECTION 5: FIREFIGHTING MEASURES

5.1 Suitable (& unsuitable) extinguishing methods	Suitable: $C0_2$, foam, halon, dry chemical, any "C" class or water spray. Fight larger fires with water spray or alcohol resistant foam.
5.2 Specific hazards arising from the chemical	Do not extinguish fire until leak is addressed or source is shut off; explosive sensitivity to mechanical impact; explosive sensitivity to static discharge
5.3 Special protective equipment & precautions for firefighters	• Eye protection • Wear self-contained breathing apparatus • Wear fully protective suit • Isolate materials not involved if possible, if not cool endangered materials with water spray • If possible, prevent run-off water spray from entering storm drains, bodies of water, or other environmentally sensitive areas

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal & environmental precautions, protective equipment & emergency procedures	**Personal:** • Avoid breathing vapors • Ensure adequate ventilation • Keep away from ignition sources • Evacuate personnel to safe areas **Environmental:** • Do not allow to enter sewers/surface or ground water, storm drains and soils; in case above inform respective authorities • Dispose contaminated material as water according to item 13 – Ensure adequate ventilation • Collect material via broom or mop. Place in tightly sealed containers for proper disposal • Approach spill areas with caution
6.2 Methods & materials for containment & cleanup	• Create a dike or trench to contain material. Soak up with absorbent material such as clay, sand or other suitable non-reactive material • Place in leak-proof containers. Seal tightly for proper disposal • Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and

		those of Canada and its Provinces, those of Australia, Japan and EU Member States • See section 13 for information on disposal information

SECTION 7: HANDLING & STORAGE

7.1 Safe handling & storage precautions, including incompatibilities	**Safe handling advice**	• To prevent eye contact under the foreseeable conditions of use, wear appropriate eyewear • When handling, do not eat, drink or smoke • Wash thoroughly after handling
	Storage/Transport pressure	• Contents under pressure • Keep container closed when not in use • store in well ventilated area

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

		107-21-1 ethanediol
8.1 Control parameters based on OSHA'a permissible exposure limits (PEL's) & OSHA's threshold limit values (TLV's)	IOELV (EU)	260 mg/m³, 200 ppm Skin
	PEL (USA)	260 mg/m³, 200 ppm
	REL (USA)	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin
	TLV (USA)	Short-term value: 328 mg/m³, 250 ppm Long-term value: 262 mg/m³, 200 ppm Skin; BEI
	EL (Canada)	Short-term value: 250 ppm Long-term value: 200 ppm Skin
	EV (Canada)	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260mg/m³, 200 ppm Skin
8.2 Appropriate engineering controls	N/A	
8.3 Personal protection measures, protective equipment recommendations & exposure controls	**Eyes**	 Safety Glasses If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.
	Body	Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazard
	Respiratory	Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use

	only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.
Hands	Protective Gloves  Chemical resistant gloves are recommended to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical & chemical properties

Form	Clear liquid
Color	N/A
Odor	sulfur
Odor threshold	No data available
pH-Value	No data available
Melting point/Melting range	No data available
Boiling point/Boiling range	< 35.6 °F (2 °C)
Flash point	< 76 °F (-60 °C)
Evaporation rate	N/A
Flammability (solid, gaseous)	Extremely flammable gas
Upper/Lower Flammability or Explosion Limits	1.9 – 8.5
Vapor pressure at 20 °C	No data available
Vapor Density	Heavier > 1.0
Relative density	No data available
Specific gravity	0.60
Solubility in water	Not miscible
Partition coefficient (n-octanol/water)	Not determined
Weight per gallon	No data available
Partition coeffifient (n-octanol/water)	No data available
Auto-ignition temperature	549 °F (287 °C)
Decomposition temperature	No data available
Viscosity	No data available

SECTION 10: STABILITY & REACTIVITY

10.1 Lists chemical stability & possibility of hazardous reactions	• Product is not reactive • Stable under conditions of normal storage & use • Hazardous reactions will not occur
10.2 Conditions to avoid	• Avoid heat, flames, sparks and other sources of ignition • Minimize contact with material • Containers may rupture if exposed to heat
10.3 Incompatible materials	Strong oxidizing agents
10.4 Hazardous decomposition products	Carbon oxides

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Routes of exposure; related symptoms, acute & chronic effects, numeral measures of toxicity

Toxicity Data

Butane	106-97-8	LC50 - Rat	658,000 mg/mg^3

Suspected Cancer Agent	Ingredients within this product are not found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be cancer-causing agents by these agencies
Irritancy	Respiratory irritant
Sensitization to the Product	This product is not expected to cause skin sensitization
Germ Cell Mutagenicity	This product does not contain ingredients that are suspected to be a germ cell mutagenic.
Reproductive Toxicity	This product is not expected to be a human reproductive toxicant

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecological Information

Toxicity	No data available
Persistence & degradability	No specific data available on this product
Bio-accumulative potential	No specific data available on this product
Mobility in soil	No specific data available on this product
Results of PBT & vPvB assessment	No specific data available on this product
Other adverse effects	No data available
Water endangerment class	At present, there are no exotoxicological assessments for this product

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal Considerations

Waste treatment methods	Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of EU Member States and Canada
EU waste code	Not determined

SECTION 14: TRANSPORT INFORMATION

14.1 Transport Information

UN identification number - DOT	UN1075
UN proper shipping name	Petroleum gases, liquefied (contains butane)
Hazard class number & description	Class 2.1 – Flammable Gas
DOT labels required	FLAMMABLE GAS
North American emergency response Guidebook number	115
Environmental hazards	The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).
IATA	This product is considered as dangerous goods
IMO	This product is considered as dangerous goods

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

U.S. SARA Reporting Requirements

The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act

U.S. SARA 311/312

Acute Health: No; Chronic Health: Yes; Fire: Yes; Reactivity; No

U.S. CERCLA Reportable Quantity

None

U.S. TSCA Inventory Status

The components of this product are listed on the TSCA Inventory or are exempted from listing

Other U.S. Federal Regulations

None known

California Safe Drinking Water and Toxic Enforcement Act (Proposition 66)

This product does not contain ingredients on the Proposition 65 Lists

Canadian DSL/NDSL Inventory Status

Components are DSL Listed, NDSL Listed and/or are exempt from listing

Other Canadian Regulations

Not applicable

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations

Canadian WHMIS Classification

This product has been classified per WHMIS 2015 standards

European Economic Community Information

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives. See Section 2 for Details

Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier

Australian Information for Product

Components of this product are listed on the International Chemical Inventory list.

Japanese Information for Product

Japanese Minister of International Trade and Industry (MITI) Status: The components of this product are not listed as Class I specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

15.6 International Chemical Inventories

Listing of the components on individual country Chemical Inventories is as follows:
Australian Inventory of Chemical Substances (AICS): Listed
Korean Existing Chemicals List (ECL): Listed
Japanese Existing National Inventory of Chemical Substances (ENCS): Listed
Philippines Inventory if Chemicals and Chemical Substances (PICCS): Listed
U.S. TSCA: Listed

SECTION 16: OTHER INFORMATION