

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration (Non-Mandatory Form)
Form Approved OMB No. 1218-0072

Identity (As Used on Label and List)
LIGHTERS, containing flammable gas (UN# 1057)

Note: Blank Spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION I

Supplier's Name Magna Industires, Inc.	Emergency Telephone Number 1-800-424-9300
Address <i>Number, Street, City and Zip Code</i> 2233 West 110th Street Cleveland, Ohio 44102	Telephone Number for Information 1-323-261-7293
	Date Prepared September 24, 2001
	Signature of Preparer (Optional)

SECTION II - Hazardous Ingredients/ Identity Information

Hazardous Components <i>Specific Chemical Identity, Common Name(s)</i>	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (Optional)
Butane (n-Butane) CAS #106-97-8	NA	800 PPM	NIOSH - 800 PPM	80
Propane (n-Propane, Propyl Hydride) CAS #74-98-6	1,000 PPM	1,000 PPM	NIOSH - 1,000 PPM	20

NFPA Hazard Ratings Health - 1 Flammability - 4 Reactivity - 0	HMIS Ratings Health - 0 Flammability - 4 Reactivity - 0
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SECTION III - Physical/Chemical Characteristics

Boiling Point	10.9°F	Specific Gravity (H₂O = 1)	0.56
Vapor Pressure (mm Hg)	1823	Melting Point	NA
Vapor Density (Air = 1)	2	Evaporation Rate (Butyl Acetate = 1)	>1
Solubility in Water	@ 77°C, 17cc per 1000 cc of Water		
Appearance and Odor	Clear, Odorless		

SECTION IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	-120°F (O.C.)	Flammable Limits	NA	LEL	1.8	UEL	8.4
Extinguishing Media	Carbon dioxide, dry chemical, fog or water spray.						
Special Fire Fighting Procedures	Confine fire to immediate area. Disperse liquid or vapor if leaks occur.						
Unusual Fire and Explosion Hazards	Will form explosive mixtures in air. Vapors from liquified gas initially heavier than air and spread along ground. Vapors may travel to ignition source and flash back.						

SECTION V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	Heat, Sparks, Open Flames.
Incompatibility (Materials to Avoid)	Strong acids, alkalis and oxidizers.		
Hazardous Decomposition or Byproducts	Combustion may produce carbon monoxide.		
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

SECTION VI - Health Hazard Data

Route(s) of Entry	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Yes

Health Hazards (Acute and Chronic)
Extreme flammability; vapor clouds easily ignited; simple asphyxiation; frostbite to skin and eyes from contact with liquid gases.

Carcinogenicity	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure
Drowsiness or dizziness possible at low concentrations of the gases.

Medical Conditions
Generally Aggravated by Exposure

Personnel with pre-existing chronic respiratory diseases should avoid exposure to these gases.

Emergency and First Aid Procedures

Remove affected personnel from contaminated area to fresh air. For respiratory distress, give air, oxygen, and administer cardio-pulmonary resuscitation as needed. For burns to eye, remove contact lenses and immediately flush with water for at least 15 minutes. Frozen skin should be flooded with warm water (105-115°F).

SECTION VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Remove all ignition sources. Ventilate area of leak to disperse the gas.

Waste Disposal Method

Discharge at moderate rate in well ventilated area without ignition sources.

Precautions to be Taken in Handling and Storing

Store in a cool, dry place. Keep away from heat, sparks and flame. Do not store in temperatures exceeding 120°F or in direct sunlight.

Other Precautions

Do not store with strong acids (e.g. hydrochloric acid, sulphuric acid), strong bases (e.g. sodium hydroxide, potassium hydroxide), oxidizing agents (e.g. perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, fluorine, bromine) and mixtures of nickel carbonyl and oxygen.

SECTION VIII - Control Measures

Respiratory Protection (Specify Type)

Not required for normal use. For excessive gas concentrations use NIOSH/MSHA approved SCBA.

Ventilation	Local Exhaust Maintain level below .25 LEL.	Special NA
	Mechanical (General) Maintain level below .25 LEL.	Other NA
Protective Gloves Rubber Gloves.	Eye Protection ANSI Approved Chemical Workers Goggles.	

Other Protective Clothing or Equipment

Not Required.

Work/Hygenic Practices

On skin contact with butane, immediately immerse the affected body part in warm water.

SECTION IX - Shipping Information

WHMIS Classification:		A - Compressed Gas	B-1 - Flammable Gas
Department of Transportation:	Proper Shipping Name Lighters, containing flammable gas	Hazard Classification 2.1	UN No. 1057