



Product Name: BIC Pocket Lighter

SAFETY DATA SHEET

Date Prepared:
May 19, 2015

Version 6

SECTION 1 – IDENTIFICATION

Product Name:	BIC Pocket Lighter
Synonyms:	None
Product Use:	Thermoplastic casing with liquefied hydrocarbon fuel mixture for consumer use.
Manufacturer/ Vendor Information:	Supplier information: BIC Corporation One BIC Way, Suite 1 Shelton, CT 06484 USA (203) 783-2000 Emergency Telephone Number: (203) 783-2412 For Transportation Emergencies call CHEMTREC: (800)424-9300 BIC Inc. 155 Oakdale Road Downsview, Ontario M3N 1W2 CANADA (416) 742-9173 x288 (Business hours)
SDS Contact:	Product Safety
Telephone Number:	(203) 783-2124

SECTION 2 – HAZARD(S) IDENTIFICATION

This product is a consumer product and is not subject to the requirements of OSHA HCS/HazCom 2012. Nonetheless, this SDS, including the hazard identification in accordance with HCS/HazCom 2012, is provided for the information of product users.	
Classification in Accordance with 29 CFR § 1910.1200:	Flammable Gas – Category 1 Liquefied Gas Simple Asphyxiant
Signal Word:	Danger
Hazard Statements:	Extremely flammable gas Contains gas under pressure; may explode if heated May displace oxygen and cause rapid suffocation
Symbols:	

according to the HCS/HazCom 2012 (29 CFR § 1910.1200)

Precautionary Statements:	<p><u>Prevention:</u> Keep away from heat/sparks/open flames/hot surfaces. – No smoking.</p> <p><u>Response:</u> Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.</p> <p><u>Storage:</u> Store in well-ventilated place. Protect from sunlight.</p>
Any Hazards Not Otherwise Classified:	High vapor concentrations may cause headache, nausea, dizziness, drowsiness, incoordination and unconsciousness [Central Nervous System (CNS) depression]. Contact with liquefied gas may cause cold burns or frostbite to skin or eyes. Repeated inhalation of high concentrations of isobutene may cause weak cardiac sensitization.
For more information refer to Section 11 of this SDS	

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Substance:	
CAS No.	Chemical Name
75-28-5	Isobutane
The following are components of the lighter casing material (an article), which are not expected to be hazardous during normal conditions of use:	
25231-38-3	Polyoxymethylene thermoplastics (Acetal), may contain residual formaldehyde at <50 ppm.
32131-17-2	Polyamide type 66 thermoplastics (Nylon)

SECTION 4 – FIRST-AID MEASURES

Eyes:	In the event of contact with liquefied isobutane, immediately and briefly, flush with lukewarm, gently flowing water for at least 15 minutes. If frostbite has occurred, DO NOT attempt to rewarm. Cover both eyes with a sterile dressing. DO NOT allow victim to drink alcohol or smoke. Quickly transport victim to an emergency care facility.
Skin:	In the event of contact with liquefied isobutane causing frostbite to the skin: DO NOT attempt to rewarm the affected area on site. DO NOT rub area or apply dry heat. Gently remove clothing or jewelry that may restrict circulation. Carefully cut around any clothing that sticks to the skin, and remove the rest of the garment. Loosely cover the affected area with a sterile dressing. DO NOT allow victim to drink alcohol or smoke. Quickly transport victim to emergency care facility. As quickly as possible, remove contaminated clothing, shoes, and leather goods (e.g., watchbands, belts) as the product is extremely flammable.
Inhalation:	This product is extremely flammable. Take proper precautions (e.g., remove any sources of ignition). If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Immediately transport victim to an emergency care facility.
Ingestion:	Ingestion of this product is unlikely since isobutane is a gas at room temperature.
Most Important Symptoms and Effects, Both Acute and Delayed	
Symptoms/Injuries after Inhalation:	Inhalation of high concentrations can cause CNS effects and weak cardiac sensitization.
Symptoms/Injuries after Skin Contact:	Direct contact with liquefied gas may cause cold burns/frostbite.
Symptoms/Injuries after Eye Contact:	Direct contact with liquefied gas may cause cold burns/frostbite and permanent eye damage.
Symptoms/Injuries after Ingestion:	Ingestion of this product is unlikely since isobutane is a gas at room temperature.
Indication of Any Immediate Medical Attention and Special Treatment Needed	

Treat symptomatically.

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing Media:	Suitable: Dry chemical powder and high-expansion foam Unsuitable: carbon dioxide, low expansion foam, water
Conditions of Flammability:	EXTREMELY FLAMMABLE. Will release gases that form flammable mixtures at or above the flash point. Isobutane is heavier than air and may travel along the ground or be moved by ventilation to sources of ignition far removed from the source of isobutane.
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, smoke and irritating vapors may be formed on combustion.
Special Firefighting Procedures:	Wear self-contained breathing apparatus and protective clothing to prevent inhalation and contact with skin and eyes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Extremely flammable. Ventilate area. Avoid using sources of ignition in release area.
Methods for Containment and Cleaning Up:	Prevent material from entering confined spaces. Stop or reduce leak if you can do so without risk. Isolate area until gas has dispersed.

SECTION 7 – HANDLING AND STORAGE

Handling	
Precautions for Safety Handling:	Extremely flammable. Avoid inhalation and contact with eyes and skin. Wash thoroughly after handling this product if in contact with skin.
Storage	Store in cool, dry, well-ventilated area. Protect from sunlight. Store away from incompatible and reactive materials (See Section 10). Keep container tightly closed. Store away from heat and sources of ignition.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters		
Chemical Name	CAS Number	Exposure Limits
Isobutane	75-28-5	ACGIH: (TLV-STEL) 1000 ppm (butane, all isomers) TLV Basis – Critical Effects: Central Nervous system impairment NIOSH (REL-TWA) 800 ppm (1900 mg/m ³)
The selection of personal protective equipment varies, depending upon the conditions of use. Use equipment appropriate to your particular use pattern.		
Engineering Measures:	For normal application, special ventilation is not necessary.	
Eye Protection:	Not required under normal use conditions.	
Hand Protection:	None necessary under normal use conditions.	
Skin and Body Protection:	None necessary under normal use conditions.	
Respiratory Protection:	None necessary under normal use conditions.	

ACGIH = American Conference of Governmental Industrial Hygienists

NIOSH = National Institute for Occupational Safety and Health

REL = Recommended Exposure Limit

TLV = Threshold Limit Value

TWA= Time-Weighted Average

STEL = Short-Term Exposure Limit

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Physical State:	Isobutane – Clear colorless liquefied gas. Plastic polymer casing – solid plastic material.
Odor:	Sweet petroleum odor (isobutane) and slight plastic odor (casing)
Odor Threshold:	Odor threshold is not available.
pH:	Not applicable
Melting Point:	-138.3°C (-216.9°F) – Isobutane
Boiling Point:	-11.7°C (11°F) – Isobutane
Flash Point:	-83°C (-117°F) (Open Cup)
Evaporation Rate:	>>1 (immediately evaporates) (Ethyl ether=1)
Flammability:	Extremely flammable gas
Flammability Limits in Air Lower (LFL): Upper (UFL):	1.8% by volume – Isobutane 8.4% by volume – Isobutane
Vapor Pressure:	31 PSIG @ 70°F (21°C) – Isobutane
Vapor Density:	2.006 @ 60°F (15.6°C) (air =1) – Isobutane
Density/Specific Gravity:	0.5626 @ 60°F (15.6°C)
Solubility in Water:	Very slightly soluble (0.008%) (isobutane). Insoluble (casing).
Octanol/ Water Partition Coefficient:	Log P _(OCT) = 2.76 – Isobutane
Auto-ignition Temperature:	860°F (460°C) Closed Cup – Isobutane
Decomposition Temperature:	Not available
Viscosity:	Not applicable

SECTION 10 – STABILITY AND REACTIVITY

Reactivity	This product is stable under the normal conditions of use.
Chemical Stability:	Stable
Possibility of Hazardous Reactions:	Will not undergo hazardous polymerization.
Conditions to Avoid:	Avoid heat sources, sparks or flames and static discharge.
Incompatible Materials:	Avoid strong oxidizing agents and halogen compounds.
Hazardous Decomposition Products:	None expected under the normal conditions of use.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Entry:	Skin contact, Inhalation, Eye contact, Skin Absorption, Ingestion (in liquefied form)		
Acute Toxicity			
<i>Product data:</i> Not available.			
<i>Ingredient data:</i>			
<u>Chemical</u>	<u>CAS#</u>	<u>Route & Species</u>	<u>Value</u>
Isobutane	75-28-5	Inhalation, mouse (male)	LC ₅₀ 368,000 ppm (36.8%) (4h)
		Inhalation, rat	LC ₅₀ >13,023 ppm (1.3%) (4h) LC ₅₀ 570,000 ppm (57%) (15 mins)*
*LC ₅₀ values obtained with 15-minute exposure durations cannot be reliably converted to 4-hour exposures.			
Eye Irritation:	Not expected to be an eye irritant. Contact with liquefied isobutane may cause cold burns/frostbite and permanent eye damage.		
Skin Irritation:	Not expected to be a primary skin irritant. Contact with liquefied isobutane may cause cold burns/frostbite.		
Ingestion Effects:	Not applicable. Not an expected route of entry.		
Inhalation Effects:	Inhalation of high concentrations can cause CNS effects and weak cardiac sensitization (to adrenaline).		
Skin Sensitization:	Contact with this product is not expected to cause skin sensitization, based upon the available data and the known hazards of the components.		
Respiratory Tract Sensitization:	Contact with this product is not expected to cause respiratory tract sensitization, based upon the available data and the known hazards of the components.		
Chronic Toxicity			
Carcinogenicity:	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause cancer. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a carcinogen.		
Mutagenicity:	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause mutagenicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a mutagen.		
Reproductive Toxicity:	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause reproductive toxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a reproductive toxin.		
Teratogenicity/Embryotoxicity:	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause teratogenicity and/or embryotoxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a teratogen/embryotoxin.		
Other Chronic Effects:	Exposure to isobutane is not known to cause chronic toxic effects of sufficient severity to threaten life or cause serious impairment.		

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:	Not Available
Persistence/ Degradability:	Not Available
Bioaccumulation:	Not Available
Mobility:	Not Available
Other Adverse Effects:	Not Available

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method:	In accordance with local, provincial/territorial or federal guidelines and regulations.
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SECTION 14 – TRANSPORT INFORMATION

	Shipping name	UN Number	Hazard Class	PG
DOT (US)	LIGHTERS	1057	2.1	--

DOT= Department of Transport

SECTION 15 – REGULATORY INFORMATION

OSHA Classification: (OSHA Hazard Communication Standard (29 CFR §1910.1200))

This product has been classified in accordance with the hazard criteria of the OSHA's HCS/HazCom 2012 and the SDS contains all the information required by the 29 CFR § 1910.1200.

Hazard Ratings

	NPCA/HMIS	NFPA 704
Health:	1	1
Flammability:	4	4
Reactivity:	0	0

NPCA/HMIS – National Paint and Coatings Association/ Hazardous Materials Identification System

NFPA – National Fire Protection Association

- The components in this product are listed on the TSCA Inventory or are otherwise exempt from TSCA.
- Some plastics in this product may form formaldehyde gases during their combustion. Formaldehyde is considered to be a carcinogen by the State of California (California Proposition 65) if exposure to it exceeds the No Significant Risk Level (NSRL)- Safe Harbor Level (40 micrograms/day).
- ASTM F400-04 (Standard Consumer Safety Specification for Lighters).
- ISO 9994 (Lighters – Safety Specification).
- U.S. Safety Standard for Cigarette Lighters, 16 CFR Part 1210 (July 12, 1994).

SECTION 16 – OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Preparation Date: May 19, 2015

Supersedes Date: May 6, 2015

Disclaimer: The information given is based on data currently available to us and is believed to be correct. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. No responsibility is assumed for injury or damage from the use of the products described herein.