



Product Name: BIC Pocket Lighter

SAFETY DATA SHEET

Date Prepared:
June 28, 2023

Version 11

This product is a consumer product and is not subject to the requirements of OSHA HCS/HazCom 2012 nor Health Canada Hazardous Products Regulations (WHMIS 2015). Nonetheless, this SDS is provided for the information of product users.

SECTION 1 – IDENTIFICATION

Product Name:	BIC Pocket Lighter
Synonyms:	None
Product Use:	Device intended to produce a flame.
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) 783-2412

SECTION 2 – HAZARD(S) IDENTIFICATION

Classification in Accordance with 29 CFR § 1910.1200 and WHMIS, 2015:	Flammable Gas – Category 1 Gas under Pressure - Liquefied Gas
Signal Word:	Danger
Hazard Statements:	Extremely flammable gas Contains gas under pressure; lighter may rupture if heated Packaged product exhibits a lesser hazard due to fuel containment within the product and protection of the packaging
Symbols:	
Precautionary Statements:	<u>Prevention:</u> Keep away from heat/sparks/open flames/hot surfaces. <u>Response:</u> Eliminate all ignition sources if safe to do so. In case of fire: Extinguish with water. <u>Storage:</u> Protect from sunlight.

Any Hazards Not Otherwise Classified – Physical Hazards:	None
Any Hazards Not Otherwise Classified – Health Hazards:	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

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:	The fuel inside the lighter 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: Water, foam, dry chemical powder and carbon dioxide.
Conditions of Flammability:	The fuel within the lighter is EXTREMELY FLAMMABLE. In the event of damage to the lighter product, small quantities of extremely flammable isobutane gas can be released. Provide adequate ventilation and keep ignition sources far removed.
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, smoke and irritating vapors may be formed on combustion.
Special Protective Equipment and Precautions for Fire-fighters:	Wear self-contained breathing apparatus and protective clothing to prevent inhalation and contact with skin and eyes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:	In the event of damage to the lighter product, small quantities of extremely flammable isobutane gas can be released. Provide adequate ventilation and keep ignition sources far removed.
Methods and Materials for Containment and Cleaning Up:	Clean up spilled material and repackage for proper waste management.

SECTION 7 – HANDLING AND STORAGE

Handling	
Precautions for Safe Handling:	Take care to prevent damage to the product
Storage	
Conditions for Safe Storage, including any Incompatibilities:	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 Controls:	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:	The product is an article – a device consisting of plastic and metal components containing a clear colorless liquefied gas.
Odor:	Sweet petroleum odor (isobutane) and slight plastic odor (casing)
Odor Threshold:	Odor threshold is not available.
pH:	Not applicable
Melting Point/Freezing Point:	-138.3°C (-216.9°F) – Isobutane
Initial Boiling Point and Boiling Range:	-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).
n-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.
Incompatible Materials:	Avoid strong oxidizing agents.
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 in Soil:	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	Packing Group
DOT (US)	LIGHTERS	UN1057	2.1	--
TDGR	LIGHTERS	UN1057	2.1	--
TDGR	LIMITED QUANTITY	-	-	-

DOT= Department of Transport

TDGR = Transport of Dangerous Goods Regulations (Canada)

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.

Health Canada Classification: Hazardous Products Regulations (WHMIS 2015)

This product has been classified in accordance with the hazard criteria of the Health Canada's Hazardous Products Regulations (WHMIS 2015).

	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

1. The components in this product are listed on the TSCA Inventory or are otherwise exempt from TSCA.
2. 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).
3. ASTM F400-04 (Standard Consumer Safety Specification for Lighters).
4. ISO 9994 (Lighters – Safety Specification).
5. U.S. Safety Standard for Cigarette Lighters, 16 CFR Part 1210 (July 12, 1994).

SECTION 16 – OTHER INFORMATION

Latest Revision Date: June 28, 2023

Supersedes Date: March 24, 2021

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.