

MATERIALS SAFETY DATA SHEET

BUTANE REFILL

1. IDENTIFICATION OF THE PREPARATION AND THE COMPANY

Product Name: Gas Refill
Synonyms, Trade Names: Butane Fuel 15ml to 300ml
Applications: Gas lighter fuel
Supplier: **Zhuoye Lighter Manufacturing Company Limited**
Contact No. : 0086 757 27381723

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS No	Contents	Health (class)	Risk (R No.)
Butane	106 - 97 - 8	99%		
Composition Comments	Substances indicating a hazard do so under EC Directives 88/379 & 67/548 Aerosol classified as Flammable			

3. HAZARDS IDENTIFICATION

Flammable

Substances not indicating a health hazard may have Occupational Exposure Limits detailed in Section 8 of this data sheet

Ingredients are below the levels to cause the product to be classified

4. FIRST AID MEASURES

General: Note! Keep affected person away from heat, sparks and flames!

Eyes: Promptly wash eyes with water while lifting the eyelids. Get medical attention immediately. Continue to rinse. Burns should be flushed with water to normalise Temperature. Cover eyes with sterile dressing. Do NOT apply ointments or powder.

Skin: Remove affected person from source of contamination. Promptly stop exposure and get medical attention if frostbite has occurred. Promptly flush contaminated skin with soap or mild detergent and water. Promptly remove clothing if penetrated and flush the skin with water.

Inhalation: Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. Keep the affected person warm and at rest. Get prompt medical attention

Ingestion: NEVER MAKE AN UNCONCIOUS PERSON VOMIT OR DRINK FLUIDS.
DO NOT induce vomiting Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Extinguishing Media Stop flow of material to fire. Fire can be extinguished using foam, dry chemicals, and sand dolomite etc.

Special Fire Fighting Procedures

Use water to keep fire exposed cool and disperse vapours. Cool containers exposed to flames with water from side until well after fire is out. Move container from fire area if it can be done without risk.

Unusual Fire & Explosion Hazards

Extremely flammable. May explode in a fire. May travel considerable distance to source of ignition and flashback.

Hazardous Decomposition Products

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Toxic gases/vapours/fumes of carbon monoxide (CO), carbon dioxide (CO₂)

6. ACCIDENTAL RELEASE MEASURES

Spill Cleanup Methods

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate, exhaust aerosol in well-ventilated area.

7. HANDLING AND STORAGE

Usage Precautions Keep away from heat, sparks and open flame
Storage Precautions Flammable/combustible. Keep away from oxidizers, heat and flames. May attack some plastics, rubber and coatings.
Storage Criteria Flammable compressed gas storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient Name:	CAS No.	STD	LT EXP (8 hrs)	ST EXP (15 min)
Butane	106-97-8	OES	600 ppm	750 ppm
Ingredient comments	Aerosol propellant			
Protective Gloves	Use protective gloves made of rubber (natural, latex)			
Ventilation	Well ventilated area			
Respirators	No specific recommendation made, but respiratory protection must be used If the general level Occupational Exposure Level (OEL)			
Eye Protection	Under normal use should not be required. Always direct nozzle away from the face			
Other Protection	Use in well ventilated area			

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour	colourless	Appearance	gas
Odour/taste	mild (or faint), disagreeable		
Physical Data Comments	this product is an aerosol using hydrocarbon propellants. The flammability data is based on these hydrocarbons.		
Solubility Description	Slightly soluble in water		
Specific Gravity (Water = 1)	0.599 @ 20°C	Mol Weight (At WT)	58.14
Vapour Pressure (mmHg)	1520 @ 18°C	Vapour Density (air = 1)	2.05
Melting Point	-137 °C		
Flash Point	-60 °C	Flash Point Method	CC (closed cup)
Auto ignition Temperature	405 °C		
Flammability Limit	lower % 1.90		
Flammability Limit	upper % 8.50		

10. STABILITY AND REACTIVITY

Stability Avoid heat, sparks and flames
Materials to avoid Strong oxidizing agents
Conditions to avoid Evaporates easily in air. Reacts strongly with oxidizers.
Hazardous Decomposition Products
Toxic gases/vapours/fumes of carbon monoxide (CO) carbon dioxide (CO₂)

11. TOXICOLOGICAL INFORMATION

Toxic Conc.-LC50 680 ppm/2h (inh - mus)
Target organs Central nervous system, eyes, respiratory system and lungs

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Health Warnings Gas or vapour displaces oxygen available for breathing (asphyxiant).
Narcotic effect

Medical Symptoms May cause suffocation. Dizziness.

Acute and chronic health hazards Contact with liquid form may cause frostbite.

12. DISPOSAL CONSIDERATIONS

Disposal Methods Vent to atmosphere

Empty Containers Dispose of empty containers without puncturing **DO NOT INCINERATE**

13. TRANSPORT INFORMATION

ROAD:

UN No	1057	Hazchem Code	2WE
ADR Class	2	ADR Item No.	3b
ADR Hazard No.	23 Flammable Gas		
CEPIC TEC ® No.	276	ADR Label No.	3

Label for conveyance

AIR:

UN No.	1057	Air Transport Class No.	2
AIR Sub Class	3		

SEA:

UN No.	1057	Sea Transport Class No.	2(2.1)
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RAIL:

Rail Transport Class No 2	Road PT.	3b
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15. REGULATORY INFORMATION

Label for Supply

Risk Phrases	R 10	Flammable
Safety Phrases	S - 9	Keep container in well ventilated place
	S - 16	Keep away from sources of ignition - NO SMOKING
	S - 33	Take precautionary measures against Static discharges

16. OTHER INFORMATION

-User Notes This product is supplied in an aerosol form using a highly flammable gas as a propellant. Properly used for the intended purpose and in accordance to this safety data sheet should not present any undue hazard.

Information Sources Dangerous Properties of Industrial Chemicals, 6.edition, N.Sax,1984
OSHA Air Contaminants - Permissible Exposure Limits (Title 29)
Handbook of Toxic and Hazardous Chemicals and Carcinogens, Sittig,'85
Hazardous Materials, Emergency Response Guidebook, DOT-P 5800.3, 1984
NIOSH/OSHA Pocket Guide to Chemical Hazards (latest edition)
Threshold Limit Values and Biological Exposure Indices for 1994 - 95
Chemical Safety Data Guide. Bureau of National Affairs , 1985