

Material Safety Data Sheet

(MSDS)

In accordance with GHS Rev. 6 and The EU CLP REGULATION (EC) No 1272/2008

Section 1 - Chemical Product and Company Identification

1.1 Product Identification:

Product Name: Gas for portable gas appliances ASTER GAZ-450

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Gas for portable gas appliances/
Use advised against: No data available.

1.3 Details of the Manufacture or supplier

Manufacture: LINYI JOINT NATURE CHEMICAL CO., LTD.
Address: MIDDLE OF №2 GONGYE ROAD, LANSHAN INDUSTRIAL PARK,
LANSHAN DISTRICT, LINYI, SHANDONG, PRC, 276015, CHINA

1.4 Emergency telephone number

Emergency Telephone: +86-13562963522

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture

GHS Classification: Flammable aerosol (Category 2)
Specific target organ toxicity - single exposure (Category 3)
Central nervous system Carcinogenicity (Category 2)

2.2 GHS Label elements, including precautionary statements

GHS Labels:

Pictogram(s):



Signal Word: Warning

Hazard Statement:	H223: Flammable aerosol H315: Causes skin irritation H319: Causes serious eye irritation H336: May cause drowsiness or dizziness H351: Suspected of causing cancer
Precautionary Statement(s)	
Prevention Precautionary Statements:	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211: Do not spray on an open flame or other ignition source. P251: Do not pierce or burn, even after use. P260: Do not breathe dust/fumes/gas/mist/vapors/spray. P264: Wash thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. P281: Use personal protective equipment as required
Response Precautionary Statements:	P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P333+313: If skin irritation or a rash occurs: Get medical advice/ attention. P362: Take off contaminated clothing and wash before reuse. P304+P340+P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing. P337+313: If eye irritation persists get medical advice/attention. P370+378: In case of fire: Use sand, alcohol-resistant foam, dry chemical or carbon dioxide for extinction. P308+313: If exposed: Call a POISON CENTER or doctor/physician. P314: Get medical advice/attention if you feel unwell.
Storage Precautionary Statements:	P403+233: Store in a well ventilated place. Keep container tightly closed. P405: Store locked up. P410+412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Disposal Precautionary Statements:	P501: Dispose of contents and container in accordance with local/ regional/national/international regulations.

2.3 Description of any hazards not otherwise classified

None. See section 11 for more detailed information on health effects and symptoms.

Section 3 – Composition/Information on Ingredient

Substance Preparation Article

Composition:

Chemical name	Cas No.	Content (%)
Butane	106-97-8	60%
Propane	74-98-6	35%
LPG	68476-85-7	5%

Abbreviation: CAS No. is Chemical Abstract Service Registry Number.

Section 4 – First Aid Measures

4.1 Description of first aid Measures:

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation occurs and persists, contact a physician.

Skin Contact: Remove and isolate contaminated clothing and shoes. Wash off with soap and plenty of water. If irritation occurs, contact a doctor.

Inhalation: Move a person into fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention if feel unwell.

Ingestion: If the person is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person. Consult a physician attention and get medical help.

4.2 Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in section 2 and section 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Treat symptomatically and supportively.

Section 5 – Extinguishing media

5.1 Extinguishing media

Suitable extinguishing media: Use alcohol-resistant foam, dry chemical or carbon dioxide. Use water fog to cool the unopened containers involved in fire.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter or spread fire.

5.2 Special hazards arising from the substance or mixture

Liquid and vapor are flammable. Remove all fire source. Vapor can form explosive mixture with air. Vapor may travel to source of ignition and flash back. Containers may explode when heated. Gives off irritating fumes (or gases) and combustion product (Carbon oxides, chloride) in a fire.

5.3 Advice for firefighters

Evacuate personnel to safe areas. As in any fire, Wear self-contained breathing apparatus and full protective gear for firefighting. Firefighting from a safe distance.

5.4 Further information

Standard chemical firefighting measure. Use water fog to cool down unopened container involved in fire. Prevent fire extinguishing water from contaminating surface water or the ground water source.

Section 6 - Accidental Release Measures

For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

6.1 Personal precautions, protective equipment and emergency procedures:

Evacuate area. Ventilate area. Avoid direct contact with spillage. Avoid inhaling vapor. Use suitable personal protective equipment.

6.2 Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up:

Small quantities may be contained by inert material (sand, diatomite, acid binders, universal binders, sawdust). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Gather the spilled product and keep in suitable, closed containers for recycle or disposal(see section 13).

Section 7 - Handling and Storage

7.1 Precautions for safe handling:

The usual precautionary measures for handling chemicals should be followed.

Use in well-ventilated area.

Use appropriate, approved safety equipment as in section 8.

Avoid contact with skin and eyes. Avoid breathing vapor or mist.

Wash thoroughly after handling.

Keep away from heat/sparks/open flames/overheat.

Keep container tightly closed when not in use.

Do not eat, drink or smoke at the workplace.

Keep away from strong oxides. Equip with fire fight and accidental release equipment.

For precautions see section 2.

7.2 Conditions for safe storage, including any incompatibilities:

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Store away from foodstuffs. Do not store together with incompatible materials. Keep away from heat/sparks/open flames/overheat. Avoid direct sunlight. Equip with fire fight and accidental release equipment in storage area.

Section 8 - Exposure Controls, Personal Protection

8.1 Exposure Limits:

Substance	CAS No.	OSHA PEL	NIOSH REL	ACGIH (TLV)
Butane	106-97-8		800 ppm 10 hour(s)	1,000 ppm 8 hour(s)
Propane	74-98-6	1,000 ppm 8 hour(s)	1,000 ppm 10 hour(s)	1,000 ppm 8 hour(s)

8.2 Exposure controls

Engineering Control: General industrial hygiene practice. Provide appropriate exhaust ventilation. Provide safe shower and eye wash fountain.

Personal protective equipment:

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Aerosol
Color	Transparency color
Odor	Weak odor
pH	Not available
Melting point/freezing point	Not available
Initial boiling point and boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability	Flammable
Vapor pressure	Not available
Vapor density	Heavier than air
Relative density	Not available
Solubility(ies)	Partly soluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available

Section 10 - Stability and Reactivity

10.1 Stability: Stable under normal storage temperature and pressure.

10.2 Conditions to Avoid: Heat, flames and mars. Avoid direct sunlight.

10.3 Incompatible materials: Strong oxidants.

10.4 Hazardous Decomposition Products: Other decomposition products- no data available. In the event of fire:see section 5.

10.5 Possibility of hazardous reactions: None hazardous reactions known under normal condition.

Section 11 – Toxicological Information

Acute Toxicity:

Substance	CAS No.	LD50 oral - rat	LC50 inhalation - rat	LD50 skin - rabbit
Butane	106-97-8	-	658 mg/l/4h	-
Propane	74-98-6	-	658 mg/l/4h	-

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Eye Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Dichloromethane: Suspected human carcinogen.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity – Single Exposure (Globally Harmonized System): May cause drowsiness or dizziness.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System): Based on available data, the classification criteria are not met.

Aspiration Hazard: Based on available data, the classification criteria are not met.

Potential Health Effects:

Inhalation: May be harmful if inhaled vapor. May cause drowsiness or dizziness.

Skin Contact: May be harmful if absorbed by skin. Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: Not an expected route of exposure.

Section 12 – Ecological Information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1 % or higher.

12.6 Other adverse effects

Do not allow materials to release to drains or water body.

Section 13 – Disposal Considerations**Waste treatment methods****Product**

Recycle if possible. Offer surplus and non-recyclable products to a licensed disposal company. Observe according to the national and local related regulations.

Contaminated packaging

Containers may still present chemical hazard when empty. Return to supplier for recycling if possible. Keep away from heat. Pressurized container – Do not pierce or burn, even after use.

Section 14 – Transport Information**14.1 UN Number:**

ADR/RID, IMDG, IATA 2037

14.2 UN proper shipping name: AEROSOLS

ADR/RID, IMDG, IATA

14.3 Transport hazard class(es): 2.1

ADR/RID, IMDG, IATA

14.4 Packing group: Not applicable.

ADR/RID, IMDG, IATA

14.5 Environmental hazards: No.**14.6 Special precautions for user:** No information available