



Henan Lvbang Fine Chemical Co., Ltd

No.2004 Puzhou Road,Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

SAFETY DATA SHEET

Revision Date Jan 01, 2026

SDS Number: 2026-002

Product Name: ethane

Version: 2nd Edition 2026____

Section 1. Identification

GHS product identifier: ethane

Chemical name: ethane

CAS No: 74-84-0

Molecular formula: C₂H₆

Relative molecular weight: 30.88

Technical Specification Number: 2023-002

Supplier Name: Henan Lvbang Fine Chemical Co., Ltd

Supplier Address : Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

Supplier phone number: 0393-8205508

Postcode: 457500 **Supplier Fax:** 0393-8205508

E-mail address: hnlbjxhg@163.com

Chemical accident emergency consultation line: 0532-83889090

Recommended and restricted use: Used for manufacturing ethylene, vinyl chloride, and ethyl chloride. Used as a refrigerant, fuel, etc.

Section 2. Hazards identification

EMERGENCY OVERVIEW: Extremely flammable gas. Contains pressurized gas. May explode when exposed to heat.

GHS Hazard Category: Flammable Gas Category 1: Pressurized Gas - Compressed Gas;

Labeling elements:

Pictograms:



WARNING WORD: Danger

Hazard Statement: Extremely flammable gas with pressurized gas inside, may explode when heated, may cause drowsiness or vertigo.



Henan Lvbang Fine Chemical Co., Ltd

No.2004 Puzhou Road,Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

Precautionary statement:

Preventive measures: Keep away from heat sources, embers, open flames and hot surfaces. Prohibit smoking. Avoid inhaling dust, fumes, gases, smoke, vapors, sprays.

Incident Response: When leaking gas catches fire, do not extinguish the fire unless the leak can be safely stopped. If there is no danger, eliminate all sources of ignition.

If Inhaled: Move patient to fresh air, rest, and maintain a position conducive to breathing. If feeling unwell, call a Poison Control Center or seek medical attention.

Safe Storage: Store in a well-ventilated area. Avoid light. Keep container tightly closed.

Waste disposal: Dispose in accordance with national and local regulations. It is recommended to dispose by incineration and return empty bottles to the manufacturer.

Physical And Chemical Hazards: Flammable. Can form an explosive mixture when mixed with air.

Health Hazards: At high concentrations, it has a simple asphyxiating effect and a mild anesthetic effect. When the concentration in the air is greater than 6%, dizziness, mild nausea, and anesthetic symptoms appear; when it reaches more than 40%, convulsions and even suffocation and death can occur.

Environmental hazard: It is harmful to the environment and can cause pollution to water bodies, the atmosphere, and soil.

Section 3. Composition/information on ingredients

√ Substances		Mixtures
Hazardous components	Concentration or concentration range	CAS No.
Ethane	Ethane ≥99.5%	74-84-0

Section 4. First aid measures

dermal contact	Clothes frozen on the skin should be thawed before being removed. In case of contact with liquefied gas, soak the contact area in warm water to restore temperature. In severe cases, seek medical attention.
eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.



Henan Lvbang Fine Chemical Co., Ltd

No.z004 Puzhou Road,Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

Inhalation	Get out of the scene quickly to fresh air. Keep airway open. If breathing is difficult, give oxygen. If breathing or heartbeat stops, perform CPR and seek medical attention immediately.
Ingestion	There will be no contact through this route.
Advice on protecting the rescuer	Use personal protective equipment as needed
Special tips for doctors	symptomatic treatment

Section 5. Fire-fighting measures

Hazardous Characteristics	Flammable. Can form an explosive mixture when mixed with air. There is a risk of combustion and explosion when exposed to heat sources and open flames. It will undergo violent chemical reactions when in contact with fluorine, chlorine, etc. Combustion produces harmful carbon monoxide.
Hazardous combustion products	Carbon monoxide, carbon dioxide.
Extinguishing agent	Extinguish the fire with fog water, foam, carbon dioxide, dry powder.
Fire extinguishing precautions and protective measures	Cut off the gas supply. If the gas supply cannot be cut off, do not allow the flame at the leak to be extinguished. Firefighters must wear air breathing apparatus, full body fireproof and gas resistant clothing, and extinguish the fire upwind. Remove containers from the fire to an open area if possible. Spray water to keep the containers cool until the fire is extinguished.

Section 6. Accidental release measures

Operator Protective Measures, Equipment and Emergency Response Procedures	Eliminate all ignition sources. Delineate a warning area according to the affected area of gas diffusion. Unrelated personnel should evacuate to a safe area from the crosswind and upwind directions. It is recommended that emergency responders wear positive pressure self-contained breathing apparatuses and anti-static clothing. All equipment used during operations should be
---	---



Henan Lvbang Fine Chemical Co., Ltd

No.z004 Puzhou Road,Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

	grounded. Cut off the source of leakage as much as possible. If possible, turn over the container to release gas rather than liquid. Spray water to suppress vapor or change the flow direction of vapor clouds and avoid water flow contacting the leaked substance. Prohibit directly impacting the leaked substance or source of leakage with water.
Environmental protection measures	Prevent gas from spreading through sewers, ventilation systems, and confined spaces.
Color containment of spilled chemicals, removal methods and disposal materials used	Isolate the leaking area until the gas has dissipated

Section 7. Handling and storage

Handling Precautions	Operate in a closed manner with comprehensive ventilation. Operators must undergo professional training and strictly abide by operating procedures. They must wear anti-static clothing and stay away from sources of ignition and heat. Smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. Prevent gas from leaking into the installation area. Avoid contact with oxidants and halogens. During the loading and unloading process, tank trucks must be reliably grounded and explosion-proof tools must be used to prevent static electricity. Equip with corresponding types and quantities of fire-fighting equipment and corresponding leakage emergency response plans.
Storage Precautions	Store in a cool and well-ventilated warehouse. Keep away from sources of ignition and heat. The warehouse temperature should not exceed 30°C. It should be stored separately from oxidants and halogens. Never mix for storage. Use explosion-proof lighting and ventilation facilities. Prohibit the use of mechanical equipment and tools that are prone to generating sparks. The storage area should be equipped with corresponding leakage emergency treatment equipment.

Section 8. Exposure controls/personal protection

Occupational Exposure Limits	No information available
Biological exposure limit value	No information available
Monitoring methods	Methods for the determination of airborne toxic substances: No standards have been established. Biodetection test methods: No standard has been established.

Engineering Controls	The production process is airtight and fully ventilated.
Individual protective equipment	Respiratory protection: Generally, no special protection is required. When in contact with high concentrations, a self-absorbing filter-type gas mask (half mask) can be worn. Eye protection: Generally, no special protection is required. Safety goggles can be worn when in contact with high concentrations. Skin and body protection: Wear anti-static work clothes. Hand protection: Wear general work gloves. Other protection: Smoking is strictly prohibited at the work site. Avoid long-term repeated contact. When entering tanks, confined spaces or other areas with high concentrations for operations, there must be someone on duty for supervision.

Section 9. Physical and chemical properties

Appearance and properties	Colorless and odorless gas.		
pH (indicated concentration)	Not significant	Melting/freezing point (°C)	-172~183.3
Boiling point, initial boiling point and boiling range (°C)	-88.6	Relative vapor density (air=1)	1.05
Heat of combustion (kJ/mol)	-1558.3	Relative density (water = 1)	0.45
Critical pressure (MPa)	4.87	Saturated vapor pressure (kPa)	3850 (20°C)
Flash Point (°C)	-135	Critical temperature (°C)	32.2
Decomposition temperature (°C)	No information available	n-octanol/water partition coefficient	1.81
Lower explosion limit [% (V/V)]	3	Explosive Limit [% (V/V)]	12.5
Flammability (solid, gas)	flammable	Self-ignition temperature (°C)	472
solubility	Insoluble in water, slightly soluble in ethanol and	Viscosity(mPa-s)	0.009(27°C)



Henan Lvbang Fine Chemical Co., Ltd

No.2004 Puzhou Road,Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

	acetone, and soluble in benzene.		
--	-------------------------------------	--	--

Section 10. Stability and reactivity

Chemical stability	Stable under normal conditions.
prohibition material	Strong oxidants, strong acids, strong alkalis, halogens.
Conditions for avoiding exposure	Light exposure, open flame.
hazardous reaction	Contact with strong oxidizers, halogens and other prohibited compounds may result in fire and explosion.
hazardous product	No information available

Section 11.Toxicology information

acute toxicity	No information available
Skin irritation or corrosion	No information available
Eye irritation or corrosion	No information available
Breathing or skin allergies	No information available
germ cell mutagenicity	No information available
carcinogenicity	No information available
reproductive toxicity	No information available
Specific target organ system toxicity - single exposure	No information available
Specific target organ system toxicity - repeated exposure	No information available
inhalation hazard	No information available

Section 12. Ecological information

Ecotoxicity	No information available.
Persistence and degradability	No information available
Potential bioaccumulation	No information available
Mobility in soil	No information available
Other harmful effects:	No information available

Section 13. Disposal considerations

Waste chemicals	Allow the gas to safely diffuse into the atmosphere or be used as
-----------------	---

	fuel. A small amount can be naturally vented. For large-scale venting, it is best to dispose of it by controlled incineration.
Contaminated packaging	Return the container to the manufacturer or dispose of it in accordance with state and local regulations.
Disposal Precautions	Relevant national laws, regulations and standards should be consulted before disposal.

Section 14. Transport information

United Nations Dangerous Goods No. (UN No.)	1035; 1961 (liquefied).
United Nations risk category	2.1
United Nations shipping name	Ethane; Refrigerated liquid ethane (liquefied).
Packaging category	II
Package Marking	
Packaging method	Steel Cylinders
Marine pollutants (Yes/No)	No
Transportation Precautions	Cylinders must be transported with the helmet on them. Cylinders are generally placed flat and should be placed with their mouths facing the same direction, not crossed. The height shall not exceed the vehicle protection railings, and use triangular wooden pads to prevent rolling. Transportation vehicles have warning signs and are equipped with appropriate varieties and quantities of fire-fighting equipment and emergency treatment equipment for leakage. In summer, it should be transported in the morning and evening to prevent sunlight exposure. The tanker used for transportation should have a grounding chain, and it is strictly prohibited to mix with oxidizers, halogens and other mixed transport. The exhaust pipe of the vehicle transporting the item must be equipped with a fire stopping device. It is forbidden to use mechanical equipment and tools that are easy to produce sparks for loading and unloading. Road transportation should be in accordance with the prescribed route, do not stop in residential areas and densely populated areas.



Henan Lvbang Fine Chemical Co., Ltd

No.2004 Puzhou Road,Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

	Stopover should be away from fire, heat. Railroad transportation should be prohibited from slipping.
--	---

Section 15. Regulatory information

Regulatory Information	The following laws, regulations and standards provide for the safe use, storage, transportation, loading and unloading, classification and marking of chemicals: Law of the People's Republic of China on Prevention and Control of Occupational Diseases: Classification catalog of occupational diseases : Not included Possible occupational diseases: None Regulations on the Safe Management of Dangerous Chemicals : Catalog of Hazardous Chemicals: Included Explosive hazardous chemicals: Not included Key regulatory hazardous chemicals: Included GB18218-2018 Hazardous source identification: Critical amount (t): 10 Regulations on Labor Protection in Workplaces with Drugs: Catalog of highly toxic substances: not included Regulations on the management of easy-to-control toxic chemicals: Catalog of easy-to-control toxic chemicals: not included International Conventions Stockholm Convention: Not included Rotterdam Convention: Not included Montreal Protocol: Not included
------------------------	---

Section 16. Other information

Preparation and development of information:	
Date of formulation	October 12, 2023
Formulation of instructions	This SDS is compiled in accordance with the standards such as the Content and Sequence of Items in the Technical Instructions for Chemical Safety (GB/T16483-2008) and the Content and Sequence of Items in the Technical Instructions for Chemical Safety (GB/T16483-2008). Among them, the results of GHS classification of chemicals are based on the classification carried out by itself in accordance with the Guidelines for the Implementation of the Catalog of Hazardous Chemicals (2015 Edition) (for trial implementation) and the Specification for the Classification and Labeling of Chemicals (GB30000.2-2013 to



Henan Lvbang Fine Chemical Co., Ltd

No.z004 Puzhou Road,Fanxian County Industrial Cluster Park,Puyang City,Henan Province,China

	GB30000.29-2013 series of standards).
bibliography	1、 Regulations on Safety Management of Dangerous Chemicals 2、 Guidelines for the Preparation of Technical Instructions on Chemical Safety (GB/T17519-2013) 3、 Contents and Item Order of Chemical Safety Technical Instructions (GB/T16483-2008) 4 、 《 Chemical Classification and Labeling Specifications 》 (GB30000.2-2013~GB30000.29-2013 series of standards) 5. The Third Edition of the Complete Book of Safety Technology for Hazardous Chemicals

Abbreviation Description:

MAC: The concentration of a toxic chemical that should not be exceeded at a workplace at any time during a workday.

PC-TWA: means the average permissible exposure concentration for an 8-h working day and a 40-h working week, using time as a weight.

PC-STEL: The concentration at which short-term (15min) exposure is permitted in compliance with the PC-TWA.

TLV-C: The limit value that must not be exceeded instantaneously. It is specified for certain substances such as irritant gases or substances with predominantly acute effects.

TLV-TWA: is the time-weighted average concentration of 8 hours of work per day or 40 hours of work per week, at which repeated exposure over a lifetime of work does not cause adverse effects in almost all workers.

TLV-STEL: is the maximum concentration at which continuous worker exposure for 15 min is permitted while ensuring compliance with the TLV-TWA. This concentration should not be exceeded more than four times per workday with a minimum of 60 min between exposures. it is a supplement to the TLV-TWA.

IARC: means International Agency for Research on Cancer.

RTECS: refers to the National Institute for Occupational Safety and Health's Chemical Toxicity Database.

HSDB: refers to the Hazardous Substances Database of the U.S. National Library of Medicine.

ACGIH: refers to the American Conference of Governmental Industrial Hygienists.

Disclaimer:

The information in this SDS applies only to the product specified and does not apply to mixtures of this product with other substances, etc., unless otherwise specified. This SDS provides information on the safety of use of the product only to those who have been properly trained in the use of the product. Users of this SDS must make independent judgment on the applicability of this SDS under special conditions of use. The authors of this SDS are not responsible for injuries resulting from the use of this SDS under special conditions of use.