



Cylinder Gas China Factory Best Price Bulk Industrial Gas Geh4 Germane

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: CMC
- Certification: COA
- Model Number: Geh4
- Minimum Order Quantity: 1kg
- Price: US \$100/kg
- Packaging Details: Cylinder/Tank
- Delivery Time: 15 days
- Payment Terms: L/C, T/T
- Supply Ability: 5000kg/month



Product Specification

- Product Name: Germane Gas
- Purity: 99.999%
- Transport: By Sea
- Transport Package: 44L
- Specification: 44L
- Trademark: CMC
- Origin: China
- HS Code: 2812191090
- Supply Ability: 44L
- CAS No.: 7782-65-2
- Formula: 7782-65-2
- EINECS: Geh4
- Constituent: Industrial Pure Air
- Grade Standard: Industrial Grade
- Chemical Property: Poisonous Gases



More Images



Product Description

Product Description

Germane gas refers to the compound germane, which is a chemical compound composed of germanium and hydrogen. It has the chemical formula GeH_4 . Germane is a colorless, flammable gas that is highly toxic and can be hazardous if not handled properly. Here are some key points about germane gas:

Chemical Formula: GeH_4

Molecular Weight: 76.64 g/mol

Structure: Germane gas consists of a central germanium atom bonded to four hydrogen atoms, forming a tetrahedral structure.

Physical Properties: Germane is a colorless gas at room temperature and atmospheric pressure. It has a boiling point of -88.5°C (-127.3°F) and a melting point of -164.7°C (-264.5°F).

Production: Germane can be produced through various methods, including the reaction of germanium tetrachloride with lithium aluminum hydride or the reaction of germanium dioxide with hydrogen at high temperatures.

Toxicity: Germane gas is highly toxic and poses significant health hazards. It can cause severe health effects if inhaled, ingested, or absorbed through the skin. Germane is classified as a Category 2 carcinogen, which means it is suspected of causing cancer in humans.

Applications: Germane gas has limited practical applications due to its toxicity and the availability of safer alternatives. It has been used in the semiconductor industry for the deposition of germanium films and as a precursor for the production of other germanium compounds.

Safety Considerations: Due to its toxic nature, germane gas requires careful handling and proper safety precautions. It is important to use appropriate personal protective equipment (PPE), work in well-ventilated areas, and follow strict safety guidelines when working with germane.

Environmental Impact: Germane gas is not considered a significant environmental concern due to its limited use and relatively low emissions. However, as with any toxic substance, proper disposal methods and environmental regulations should be followed to minimize potential environmental impacts.

Other Germanium Compounds: Germane is just one of the many compounds containing germanium. Other germanium compounds, such as germanium dioxide (GeO_2) and germanium tetrachloride (GeCl_4), have more widespread applications in various industries, including electronics, optics, and catalysts.

Basic Info.

Model NO.	GeH4	Constituent	Germane 99.999%
Grade Standard	Electronic Grade	Chemical Property	Inflammable Gas
Trademark	CMC	Transport Package	44L
Specification	99.999	Origin	China

Germane - (GeH_4)

Description

Germane is a flammable , colorless gas with characteristic pungent ,nauseating odor .Its boiling point is -90°C . It is unstable and can decompose explosively when heated to greater than 330°C .

Specifications

Purity , %	99.999
Oxygen + Argon	≤ 0.5 ppmv
Nitrogen	≤ 2.0 ppmv
Carbon Dioxide	≤ 2.0 ppmv
Carbon Monoxide	≤ 1.0 ppmv
Methane	≤ 1.0 ppmv
Water	≤ 1.0 ppmv
Chlorogermenes	≤ 5.0 ppmv
Digermane*	≤ 20.0 ppmv
Germoxanes	≤ 5.0 ppmv
Hydrogen*	≤ 50.0 ppmv
Trigermane	≤ 1.0 ppmv

Ship

DOT Shipping Name	Germane
DOT Classification	2.3
DOT Label	Toxic Gas, Flammable Gas
UN Number	UN2192
CAS No.	7782-65-2
CGA/DISS/JIS	350/632/W22-14L
Shipped as	Compressed Gas

Technical Information

Cylinder State @ 21.1°C	Gas
Flammable Limits In Air	0.5-100%
Auto Ignition Temperature ($^\circ\text{C}$)	54.4
Molecular Weight (g/mol)	76.62

Specific gravity (air =1)	2.65
Critical Temperature (°C)	34.8
Critical Pressure (psig)	

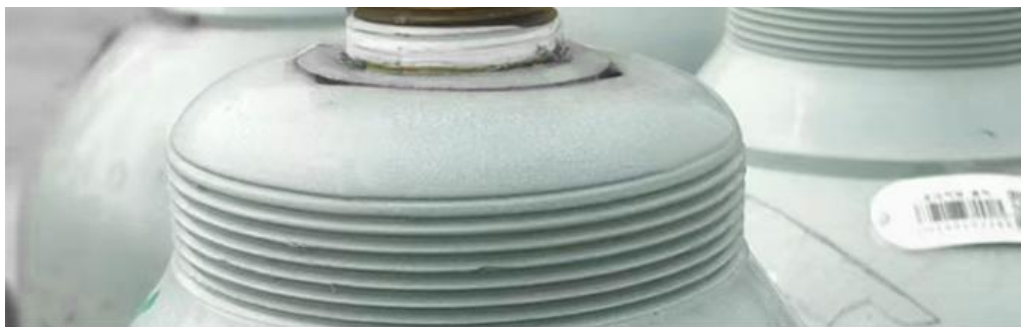
Applications

Used for the deposition of epitaxial and amorphous silicon - germanium alloys , and as a component for PECVD of (Si, Ge)O₂ films with controllable refractive index for photonic .

Detailed Photos

Production Display:





About us



Shanghai Kemike Chemical Co., Ltd is staffed by trained personnel, combine many years experience in Gas industry .We supply cylinder gas, electronic gas, etc ., and the gas holder, panel, valves and fittings and other equipment, parts and engineering services to our customers in China and worldwide; The products are involved in various industrial fields, such as semiconductor chip, solar cell, LED, TFT-LCD, optical fiber, glass, laser, medicine , etc., Our mission is to partner with our global customers to provide support, solutions and quality products that are innovative, reliable, and safe. Our products mainly include: H₂, O₂, N₂, Ar, CO₂, propane, acetylene, helium, laser mixed gas, SiH₄, SiH₂Cl₂, SiHCl₃, SiCl₄, NH₃, CF₄, NF₃, SF₆, HCL, N₂O, doping mixed gas (TMB, PH₃, B₂H₆) and other electronic gases.

SiCl ₄	NH ₃	NH ₃	CH ₃ F	SiH ₄	Kr	H ₂ S	WF ₆	F ₆ +Cl ₂
4MS	C ₃ F ₈	C ₃ F ₈	TEOS	CH ₄	PH ₃	SF ₆	C ₂	HCl+Ne
CF ₄	C ₄ F ₈	SiH ₂						TMB+H ₂
SiF ₄	C ₃ H ₈	Cl ₂						He +As
BBr ₃	C ₃ H ₆	DCE						Ge+Se
POCl ₃	N ₂	SO ₂						D+B
BCl ₃	D ₂	CO ₂						CO+NO
SiHCl ₃	CH ₂ F ₂	HF						Ar+O ₂
TMAI	DMZn	DEZn						Xe+NO
AsH ₃	C ₂ H ₄	C ₂ H ₂	HBr	COS	Ar+O ₂	Xe+NO		
GeH ₄	C ₂ H ₆	B ₂ H ₆	H ₂ Se	GeCl ₄				



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