China factory 99.999% High Quality Purity Cylinder Gas Geh4 Germane

Our Product Introduction

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: Cylinder
- Model No.: Germane Gas
- Transport Package: Cylinder
- Specification: 44L
- Trademark: CMC
- Origin: China
- CAS No.: 7782-65-2
- Formula: Geh4
- Constituent: Industrial Pure Air
- Grade Standard: Industrial Grade
- Chemical Property: Poisonous Gases
- Appearance: Colorless
- Customization: Available | Customized Request

More Images

Product Description

Germane gas (GeH4) is a colorless, flammable, and highly toxic gas. It is composed of one germanium atom bonded to four hydrogen atoms. Germane is a member of the group 14 elements on the periodic table, which includes carbon, silicon, tin, and lead. Here are some key points about germane gas:

Properties: Germane gas possesses several important properties:

Flammability: Germane is a flammable gas and can form explosive mixtures with air. It should be handled with extreme caution and stored away from ignition sources.

Toxicity: Germane is highly toxic and can cause severe health effects. Inhalation or exposure to germane can lead to respiratory irritation, dizziness, headache, and even death in high concentrations.

Reactivity: Germane is reactive and can undergo chemical reactions with various substances. It can decompose at high temperatures or in the presence of certain catalysts.

Production: Germane gas can be produced through several methods, including:

Reaction of Germanium with Hydrogen: Germane can be synthesized by the direct reaction of germanium metal with hydrogen gas at high temperatures.

Chemical Vapor Deposition (CVD): Germane can be formed as a byproduct during the deposition of thin films of germanium using chemical vapor deposition techniques.

Uses: Germane gas has some specialized applications, including:

Semiconductor Manufacturing: Germane is used in the production of semiconductors, particularly in the deposition of germanium-containing thin films for electronic and optoelectronic devices.

Research and Development: Germane gas is employed in research laboratories for various purposes, such as studying germanium chemistry, investigating thin film growth processes, and exploring new materials and applications.

Safety Considerations: Germane gas is highly toxic and poses significant health and safety risks. Proper handling, storage, and use of germane should follow stringent safety protocols and guidelines. It is important to have adequate ventilation, use personal protective equipment, and ensure that appropriate safety measures are in place when working with germane gas.

Due to its toxicity and flammability, germane gas should only be handled by trained professionals in controlled laboratory or industrial settings.

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 - (GeH4)

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
Chlorogermanes	≤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 (°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

Company Profile

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.

SiCl4	NH3	NH3	CH3F	SiH4	Kr	H2S	WF6	F6+Cl2
4MS	C3F8	C3F8	TEOS	CH4	PH3	SF6	C2	HCl+Ne
CF4	C4F8	SiH2						TMB+H2
SiF4	C3H8	Cl2						He +As
BBr3	C3H6	DCE						Ge+Se
POCl3	N2	SO2						D+B
BCl3	D2	CO2						CO+NO
SiHCl3	CH2F2	HF	AsH3	C2H4	C2H2	HBr	COS	Ar+O2
TMAl	DMZn	DEZn	GeH4	C2H6	B2H6	H2Se	GeCl4	Xe+NO

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