



## (72GeF4) Chemical Vapor Deposition Semiconductor Industry 4n Gef4 Germanium Tetrafluoride

Our Product Introduction

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### Basic Information

- Place of Origin: China
- Brand Name: CMC
- Certification: COA
- Model Number: Ge72
- Minimum Order Quantity: 1kg
- Price: US \$50/kg
- Packaging Details: Cylinder/Tank
- Delivery Time: 30 days
- Payment Terms: T/T
- Supply Ability: 200 Tons/Year



### Product Specification

- Model NO.: Ge72
- Product Name: Germanium Tetrafluoride
- Transport: Cylinder
- Appearance: Colorless
- Purity: 99.99%
- Valve: 316L Ss With 0.250" Mvcr
- Transport Package: Cylinder
- Specification: 3.6L
- Trademark: CMC
- Origin: China
- HS Code: 2804210000
- Supply Ability: 200t/Year
- CAS No.: 7783-58-6
- Formula: Gef4
- EINECS: 232-011-3



### More Images



## Product Description

### Product Description

Germanium tetrafluoride, also known as GeF<sub>4</sub>, is a chemical compound composed of germanium and fluorine. It is a colorless, volatile liquid at room temperature and pressure. GeF<sub>4</sub> has a molecular weight of approximately 130.54 g/mol.

Properties:

Chemical formula: GeF<sub>4</sub>

Molar mass: 130.54 g/mol

Appearance: Colorless liquid

Density: 2.96 g/cm<sup>3</sup> (at 25°C)

Melting point: -36.5°C

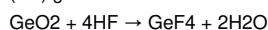
Boiling point: 84.1°C

Solubility: Insoluble in water, soluble in organic solvents like benzene and chloroform

Odor: Pungent odor

Preparation:

Germanium tetrafluoride can be prepared through the reaction of germanium dioxide (GeO<sub>2</sub>) with hydrofluoric acid (HF) or hydrogen fluoride (HF) gas. The reaction is as follows:



Uses:

Semiconductor industry: Germanium tetrafluoride is used as a precursor in the production of germanium-based materials for semiconductors.

Optical fibers: It is used in the manufacturing of optical fibers for telecommunications.

Chemical vapor deposition (CVD): GeF<sub>4</sub> is employed as a source material in CVD processes for depositing thin films of germanium on various substrates.

Catalyst: It can act as a catalyst in certain chemical reactions.

Fluorinating agent: GeF<sub>4</sub> is used as a fluorinating reagent in organic synthesis.

Safety:

Germanium tetrafluoride is toxic and corrosive. It should be handled with care, and appropriate safety precautions should be followed when working with this compound. It can cause severe burns and eye damage, so protective equipment like gloves and goggles should be worn.

Proper ventilation is necessary when using GeF<sub>4</sub> to avoid inhalation of its vapors.

Basic Info.

Model NO.	GeF <sub>4</sub>	Constituent	Germanium Tetrafluoride 99.99%
Grade Standard	Electronic Grade	Chemical Property	Colorless Gas
Trademark	CMC	Transport Package	2.2L, 3.6LL
Specification	99.99	Origin	China

Impurity	Unit	Specification	Analytical Value	Remark
Germanium Tetrafluoride	%	≥99.99	>99.99	
Ge-72	at wt%	57-59	57.99	
Argon+Oxygen	ppmv	≤20	< 1.0	N.D.
Carbon Dioxide	ppmv	≤10	2.70	N.D.
Hydrogen Fluoride	ppmv	≤25	< 15	N.D.
Nitrogen	ppmv	≤10	1.2	N.D.
Carbon Monoxide	ppmv	≤10	<1	N.D.
Sulfur Dioxide	ppmv	≤10	< 5.0	N.D.
N.D. : Not Detected				

### Detailed Photos





Company

Profile



## 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: H<sub>2</sub>, O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, propane, acetylene, helium, laser mixed gas, SiH<sub>4</sub>, SiH<sub>2</sub>Cl<sub>2</sub>, SiHCl<sub>3</sub>,



SiCL<sub>4</sub>, NH<sub>3</sub>, CF<sub>4</sub>, NF<sub>3</sub>, SF<sub>6</sub>, HCL, N<sub>2</sub>O, doping mixed gas (TMB, PH<sub>3</sub>, B<sub>2</sub>H<sub>6</sub>) and other electronic gases.

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



### Our Advantages

1. Fast delivery;
2. Stable raw material source;
3. On-line analysis system for quality control in every step;
4. High requirement and meticulous process for handling cylinder before filling;

Our carbon monoxide have been exported to many countries like India, Pakistan, Malaysia, Indonesia, Australia, Singapore, Maldives and Ecuador.

Since the establishment of our company, it has received universal praise by virtue of good reputation, high quality and perfect after service.

### FAQ

#### 1. Q: Are you a factory or a trading company?

A: We are a manufacture and trade integration company. Expert R&D department and sophisticated supply chain is our key of success.

**2. Q: Are bulk orders and multiple product orders available?**

A: Yes, we have a strong production supply system to make sure all of your requirements satisfied. One station product solution is our aim of service.

**3. Q: What if I never imported this product before, how do I do it?**

A: Don't worry. We have import and export experience with over 50 countries over the world, our fulfillment department will guide you every step of the process.

**4. Q: What is the MOQ?**

Different products have different min order. It's depends on the kind the gas and the cylinder specifications. Please feel free to contact with me directly for your requirement.

**5. Q: Why choice us Kemike Gas ?**

A: Stable Supply, Professional Solution, Reasonable Price, and Safety Business with our Taiyu.

**6. Q: How does your factory do the quality control?**

A: We have standard quality control procedure.

a> In production, we have quality analysis system to make sure each step is qualified.

b> Before filling, we do the pre-treatment for the cylinders to clean well.

c> After filling, we will do 100% inspection analyze before delivery.

**7. Q:Is it possible to ship by air?**

A:Gases are classified into class 2.1, class 2.2 and class 2.3 which are inflammable gas, non-flammable gas and poisonous gas. According to regulation, inflammable gas and poisonous gas cannot be shipped by air, and only non-flammable gas can be transported by air. If the amount purchased is large, sea transportation is better.

**8. Q:Can I customize the package?**

A:Yes of course! The most regular package is cylinder. Its size, color, valve, design and other requirements can all be met.

**9. Q: What is the package & storage details?**

A:Seamless steel cylinder with different valves, or as to your requirement.

Stored in shady, cool, dry, ventilated warehouse, and keep away from sunlight and ramming.

**10. More question.....**

Feel free to contact us, you will get immediately reply.



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