



Semiconductor Etching High Purity Cylinder Gas NF3 Nitrogen Trifluoride

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: CMC
- Certification: COA
- Model Number: NF3
- Minimum Order Quantity: 1kg
- Price: US \$50/kg
- Packaging Details: Cylinder/Tank
- Delivery Time: 15 days
- Payment Terms: L/C, T/T
- Supply Ability: 5000 Tons/Year



Product Specification

- Product Name: Nitrogen Trifluoride
- Boiling Point: -129.0 °C
- Cylinder Pressure: 15MPa/20MPa
- Cylinder Standard: DOT/ISO/GB
- Melting Point: -206.79 °C
- Appearance: Colorless, Odorless
- Transport Package: Sea Transportation
- Specification: 47L/440L
- Trademark: CMC
- Origin: Suzhou, China
- CAS No.: 7783-54-2
- Formula: NF3
- EINECS: 232-007-1
- Constituent: Industrial Pure Air
- Grade Standard: Industrial Grade



More Images



Product Description

Product Description

Nitrogen trifluoride (NF₃) is a chemical compound composed of one nitrogen atom bonded to three fluorine atoms. Here are some key points about nitrogen trifluoride:

Properties: Nitrogen trifluoride is a colorless, odorless gas at room temperature and pressure. It has a boiling point of -129.8 degrees Celsius (-201.6 degrees Fahrenheit) and is stable under normal conditions. NF₃ is non-flammable but can support combustion.

Production: Nitrogen trifluoride is primarily produced through the reaction of ammonia (NH₃) with fluorine gas (F₂). The reaction typically takes place at high temperatures and in the presence of a catalyst. Industrial-scale production of NF₃ often involves the use of a fluorination process using a metal fluoride catalyst.

Applications: Nitrogen trifluoride has various applications in different industries:

Electronics Industry: NF₃ is commonly used as a cleaning agent in the manufacturing of electronic components, such as semiconductors and flat-panel displays. It is highly effective in removing residual films and contaminants from the surfaces of devices.

Solar Panel Industry: NF₃ is used in the production of thin-film photovoltaic solar panels. It is employed as a cleaning and etching agent during the manufacturing process.

Plasma Etching: Nitrogen trifluoride is utilized as a plasma etchant in semiconductor fabrication processes. It can selectively remove certain materials from surfaces by reacting with them in a plasma environment.

Chemical Industry: NF₃ is also used as a fluorinating agent in various chemical reactions. It can introduce fluorine atoms into organic compounds and is employed in the synthesis of certain pharmaceuticals and agrochemicals.

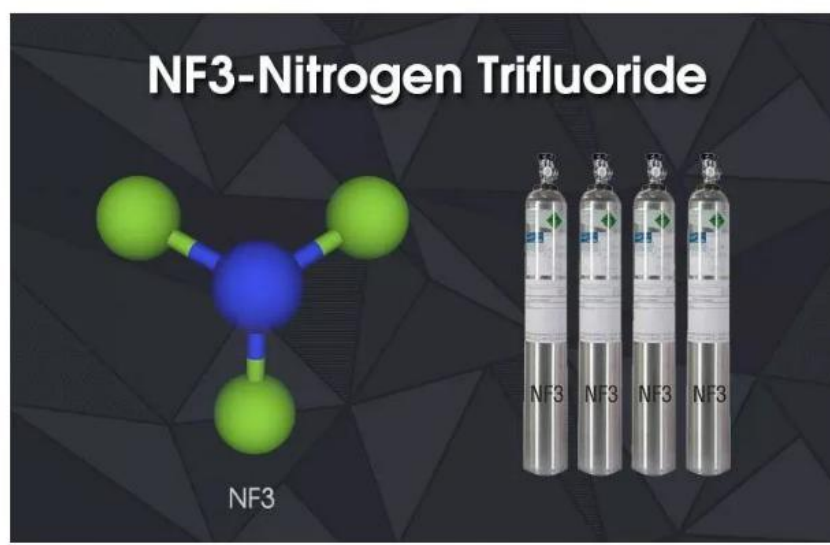
Environmental Impact: Nitrogen trifluoride is a potent greenhouse gas with a high global warming potential (GWP). It has a much higher GWP compared to carbon dioxide (CO₂) over a 100-year time horizon. Although NF₃ is present in relatively low concentrations in the atmosphere compared to other greenhouse gases, its long atmospheric lifetime contributes to climate change.

It's worth noting that nitrogen trifluoride is a toxic gas and should be handled with caution. Proper safety measures and handling procedures should be followed when working with NF₃ to ensure the protection of human health and the environment.

Basic Info.

Molecular Weight	147.05	Density	2.96Kg/m ³
Melting Point	-206.79°C	Boiling Point	-129.0°C
Appearance	Colorless,Odorless	Un No.	2451
DOT Class	2.2&5.1	Valve	Diss640
Cylinder Standard	GB/ISO/DOT	Cylinder Pressure	15Mpa/20Mpa
Transport Package	47L/440L	Specification	99.99%,99.996%
Trademark	CMC	Origin	China
HS Code	28129011	Production Capacity	5000tons/Year

Specification:



Specifications	Company Standard
NF ₃	≥ 99.996%

CF4	≤ 20 ppm
N2	≤ 5 ppm
O2+AR	≤ 3 ppm
CO	≤ 1 ppm
CO2	≤ 0.5 ppm
N2O	≤ 1 ppm
SF6	≤ 2 ppm
Moisture	≤ 1 ppm
Express as HF	≤ 1 ppm

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.

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			
GeH ₄	C ₂ H ₆	B ₂ H ₆	H ₂ Se	GeCl ₄	Xe+NO			



