Semiconductor Etching High Purity Cylinder Gas NF3 Nitrogen Trifluoride

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: CMC
- Certification: COA
- Model Number: NF3
- Minimum Order Quantity: 1kg
- Price: US $50kg
- 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 ºC
- Cylinder Pressure: 15MPa/20MPa
- Cylinder Standard: DOT/ISO/GB
- Melting Point: -206.79 ºC
- 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.

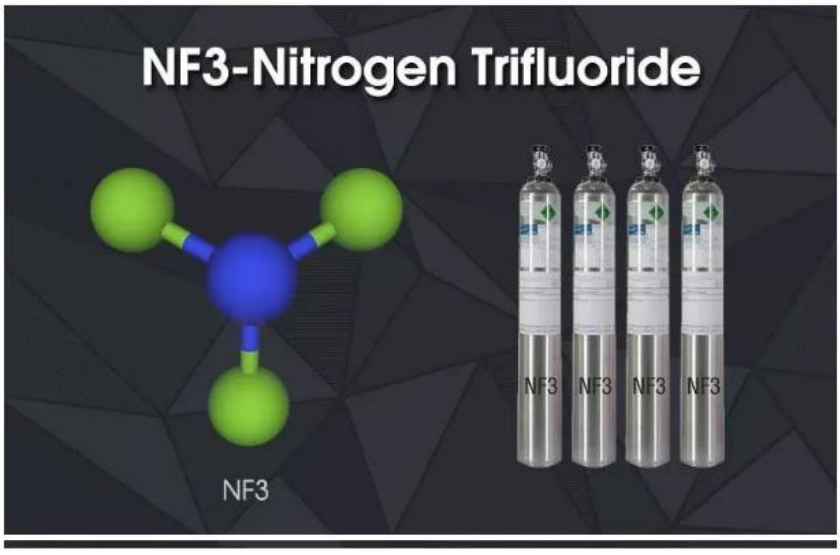
Environmental Impact: Nitrogen trifluoride is a potent greenhouse gas with a high global warming potential (GWP). It has a much higher GWP compared to carbon dioxide (CO2) over a 100-year time horizon. Although NF3 is present in relatively low concentrations in the atmosphere compared to other greenhouse 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/m³
Melting Point	-206.79ºC	Boiling Point	-129.0ºC
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
NF3	≥ 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


NF3
NF3
NF3
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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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