

三氟化硼 11 Boron11 Trifluoride

1、产品介绍 Product introduction

三氟化硼 11，无色气体，有窒息性。在空气中遇湿气立即水解，分解时生成剧毒的氟化物烟雾。三氟化硼反应性极强，遇水发生爆炸性分解，和水反应生成氟硼酸 HBF_4 和硼酸，也可与金属、有机物等可发生激烈反应。高纯三氟化硼 11 是电子、光纤工业的重要原材料之一，是半导体生产中的重要掺杂源，用于半导体器件和集成电路生产的离子注入和掺杂。

Boron trifluoride is a kind of colorless and asphyxiating gas. It will immediately hydrolyze and decompose into highly toxic fluoride smog when it encounters with moisture in the air. Boron trifluoride is highly reactive, it explosively decomposes and reacts with water to generate HBF_4 and boric acid when it encounters with water, it also reacts intensely with metal, organic matter and so on. High pure boron11 trifluoride is one of the important raw materials in the electronics and optical fiber industry, and it's an important dopant source in the semiconductor production. It is used for ion implantation and doping in semiconductor devices and integrated circuits.

2、产品指标 Quality specification

项目 Items	单位 Units	指标 Indexs	
三氟化硼 11 Boron11 Trifluoride \geq	Vol.%	99.999	99.995
氮 Nitrogen $<$	Vol.ppm	2	20
氧+氩 Oxygen+Argon $<$	Vol.ppm	1	10
二氧化碳 Carbon dioxide $<$	Vol.ppm	1	5
四氟化碳 Carbon tetrafluoride $<$	Vol.ppm	1	5
四氟化硅 Silicon tetrafluoride $<$	Vol.ppm	5	10
总杂质含量 Total impurity content \leq	Vol.ppm	10	50
颗粒 Particle		供需双方商定 Supply and demand agreement	供需双方商定 Supply and demand agreement

3、产品用途 Application

在电子工业中，高纯三氟化硼 11 可用作半导体生产中的重要掺杂源。三氟化硼在有机合成中可用作催化剂，也可作为合成有机硼化合物的原料，在焊接镁材时可用作焊剂。

In the electronic industry, high pure boron11 trifluoride can be used as an important dopant source in semiconductor production. Boron trifluoride can be used as a catalyst in organic synthesis or as raw material for the synthesis of organoboron compounds. Boron trifluoride can be used as a flux for the welding of magnesium materials.

4、包装、贮藏 Packaging and storage

三氟化硼 11 充装于钢瓶中，包装规格为 1 kg、2 kg 和 30 kg，瓶内压力为 11.8 MPa，具体包装规格可根据用户要求定制更改。产品储存于干燥、阴凉的库房中，远离热源、火源，与碱金属、碱土金属、烷基硝酸酯和石灰分开存放。

Boron11 trifluoride is filled in the cylinder. The packaging specifications include 1 kg, 2 kg and 30 kg. Specific packaging specifications can be customized according to users' requirements. The product is stored in a dry and shady storeroom away from fire and heat source, it should be separately stored with alkali metals, alkaline earth metals, alkyl nitrates and lime.