

三氟碘甲烷 Trifluoroiodomethane

1、产品介绍 Product introduction

三氟碘甲烷，又称三氟甲基碘，分子式为 CF_3I ，分子量为 195.91。三氟碘甲烷为无色无味气体，无毒、阻燃、油溶性和材料相容性好，是传统氟利昂制冷剂的替代品之一，具有灭火效率高，安全性能好，经济效益高等特点。三氟碘甲烷作为半导体刻蚀气体，与同种刻蚀气体 CF_4 、 C_4F_6 相比，蚀刻时具有更高的选择性和高深宽比。

Molecular formula of trifluoroiodomethane is CF_3I and its molecular weight is 195.91. Trifluoroiodomethane is a kind of colorless and odorless gas. It is non-toxic, fireproof, oil soluble and well-materials compatibility. It is one of the substitutes of traditional freon refrigerant with characteristics of high extinguishing efficiency, good safety performance and well economic benefit. As a kind of semiconductor etching gas, trifluoroiodomethane has higher selectivity and aspect ratio compares with the same etching gas CF_4 and C_4F_6 .

2、产品指标 Quality specification

项目 Items	单位 Units	指标 Index
纯度 Purity \geq	Vol. %	99.9
(氧+氩) Oxygen+ Argon (O_2+Ar) \leq	Vol.ppm	300
一氧化碳 Carbon monoxide (CO) \leq	Vol.ppm	200
氮气 Nitrogen (N_2) \leq	Vol.ppm	200
二氧化碳 Carbon dioxide (CO_2) \leq	Vol.ppm	200
六氟乙烷 Hexafluoroethane(C_2F_6) \leq	Vol.ppm	50
八氟丙烷 Octafluoropropane(C_3F_8) \leq	Vol.ppm	50

3、产品用途 Application

三氟碘甲烷可用作半导体刻蚀气体、电气设备绝缘与灭弧气体、灭火剂、制冷剂。此外，三氟碘甲烷还能与有机金属试剂作用，是有机合成中引入氟代甲基的重要含氟中间体，可广泛应用于有机合成、生物化学、农药、医药、表面活性剂和染料等领域。

Trifluoroiodomethane can be used as semiconductor etching gas, electrical equipment insulation, arc extinguishing gas, extinguishing agent and refrigerant, etc. In addition, trifluoroiodomethane can also interact with organometallic reagents, it is an important fluorine-containing intermediates of introducing fluoro-methyl in organic synthesis. It can be widely used in organic synthesis, biochemistry, pesticide, medicine, surfactant, dye and other fields.

4、包装、贮藏 Packaging and storage

三氟碘甲烷充装在钢质无缝气瓶中，钢瓶容积分别为 10L、47L、400 L，具体包装规格可根据用户需求定制更改。三氟碘甲烷储存于阴凉、干燥、通风良好的库房，远离火种、热源。库温不宜超过 30℃，储区应备有泄漏应急处理设备。

Trifluoroiodomethane is stored in standard seamless cylinders, the packing specifications include 10 L, 47 L and 400 L respectively. Specific packaging specifications can be customized according to user's requirements. Trifluoroiodomethane is stored in a shady, dry and ventilated storeroom away from fire and heat source. Temperature of storeroom is lower than 30℃, the storage area shall be equipped with equipment for emergency.