# 六氟化钼 Molybdenum Hexafluoride

## 1、产品介绍 Product introduction

六氟化钼（$MoF_6$），相对分子量为 209.93，熔点为 17.5℃，沸点为 35℃，低温下为白色块状结晶，对湿空气敏感。在强氧化剂存在下，六氟化钼能侵蚀许多金属（金、铂除外），使金属表面变为蓝色。六氟化钼可用于钼的同位素分离，在电子工业中用作化学气相淀积硅化钼或钼，以制作低电阻、高熔点的互连线和栅极。

Molybdenum hexafluoride ($MoF_6$) is a kind of white blocky crystal at low temperature, its relative molecular weight is 209.93, melting point is 17.5℃ and boiling point is 35℃, it is sensitive to wet air. Molybdenum hexafluoride can erode a lot of metals (except gold and platinum) and turn the metal surface blue. Molybdenum hexafluoride can be used for isotope separation of molybdenum and it is used in the electronic industry for chemical vapor deposition of molybdenum silicide or molybdenum, in order to produce interconnects and grid electrode with low resistance and high melting point.

## 2、产品指标 Quality specification

| 项目 Items | 单位 Units | 指标 Indexs | | |
|---|---|---|---|---|
| 六氟化钼 Molybdenum hexafluoride≥ | Vol.% | 99.9 | 99.999 | 99.9995 |
| 四氟化碳 Carbon tetrafluoride（$CF_4$）≤ | Vol.ppm | 10 | 0.5 | 0.5 |
| 氮气 Nitrogen（$N_2$）≤ | Vol.ppm | 50 | 1 | 0.5 |
| （氧+氩）Oxygen+ Argon.（$O_2$+Ar）≤ | Vol.ppm | 50 | 0.5 | 0.5 |
| 二氧化碳 Carbon dioxide（$CO_2$）≤ | Vol.ppm | - | 0.5 | 0.5 |
| 一氧化碳 Carbon monoxide（CO）≤ | Vol.ppm | - | 0.5 | 0.5 |
| 六氟化硫 Sulfur hexafluoride（$SF_6$）≤ | Vol.ppm | 10 | 0.5 | 0.5 |
| 四氟化硅 Silicon tetrafluoride（$SiF_4$）≤ | Vol.ppm | 10 | 0.5 | 0.5 |
| 氟化氢 Hydrogen fluoride（HF）≤ | Vol.ppm | 800 | 1 | 1 |

| 项目 Items | 单位 Units | 指标 Index |
|---|---|---|
| 钼 Molybdenum（Mo）≤ | μg/L | 10 |
| 铁 Iron（Fe）≤ | μg/L | 5 |
| 钾 Kalium（K）≤ | μg/L | 5 |
| 钠 Sodium（Na）≤ | μg/L | 5 |
| 铬 Chromium（Cr）≤ | μg/L | 5 |
| 钍 Thorium（Th）≤ | μg/L | 0.1 |
| 铀 Uranium（U）≤ | μg/L | 0.05 |
| 钴 Cobalt（Co）≤ | μg/L | 5 |
| 锰 Manganese（Mn）≤ | μg/L | 5 |
| 铅 Plumbum（Pb）≤ | μg/L | 5 |
| 锌 Zinc（Zn）≤ | μg/L | 5 |
| 钙 Calcium（Ca）≤ | μg/L | 5 |
| 镁 Magnesium（Mg）≤ | μg/L | 5 |
| 镍 Nickel（Ni）≤ | μg/L | 10 |

## 3、产品用途 Application

六氟化钼的主要应用领域是在微电子工业中用化学气相沉积硅化钼或钼，以制作低电阻、高熔点的互连线，也可用作强氟化剂、成膜材料及离子掺杂剂，还可用于钼同位素分离。

The main application fields of molybdenum hexafluoride are chemical vapor deposition of molybdenum silicide or molybdenum in microelectronics industry, in order to produce interconnects and grid electrode with low resistance and high melting point. It can also be used as strong fluridizer, film-forming material, ion dopant and molybdenum isotope separation.

## 4、包装、贮藏 Packaging and storage

六氟化钼充装在钢质无缝气瓶中，钢瓶容积分别为 8L 和 47L，具体包装规

格可根据用户需求定制更改。六氟化钼储存干阴凉、干燥、通风良好的库房中，远离火种、热源。储区应备有泄漏应急处理设备。

Molybdenum hexafluoride is stored in standard seamless cylinders, the packing specifications include 8L and 47L respectively. Specific packaging specifications can be customized according to user requirements. Molybdenum hexafluoride is stored in a shady, dry and ventilated storeroom away from fire and heat source. The storage area shall be equipped with equipment for emergency.