

全氟三丁胺 Perfluoro-tributylamine

1、产品介绍 Product introduction

全氟三丁胺 ($N(C_4F_9)_3$) 熔点为 $-52^{\circ}C$ ，沸点为 $178^{\circ}C$ ，是一种无色无臭的透明液体。由于其全部碳链上的氢全部被氟取代，所以分子异常稳定，只有在温度高于 $200^{\circ}C$ 才会少量分解。全氟三丁胺是一种重要的全氟化合物，具有无毒、低挥发性和高稳定性等一系列优良的理化性质，被广泛应用于医药、农药、航天、电子等行业。全氟三丁胺的氧携带能力强，且对人体无毒无害，可以作为血液代用品应用。近年来眼科利用其特有的比重大的性质，将其作为眼内手术暂时性填充物。

Perfluoro-tributylamine($N(C_4F_9)_3$) is a kind of colorless, scentless and transparent liquid with melting point of $-52^{\circ}C$, boiling point of $178^{\circ}C$, because all of the hydrogen is replaced by fluorine on the carbon chain, so its molecule is extremely stable, it decomposes slightly at the temperature above $200^{\circ}C$. Perfluoro-tributylamine is an important perfluoro-compound, which has a series of excellent physical and chemical properties such as non-toxic, low volatility and high stability, and it is widely used in medicine, pesticide, aerospace, electronics and other industries. Perfluoro-tributylamine can carry a large amount of oxygen, which is completely non-toxic for human body and used as a blood substitute. In recent years, it has been used as a temporary filling for intraocular surgery because of its typical character of large proportion in ophthalmology department.

2、产品指标 Quality specification

项目 Items	单位 Units	指标 Indexs		
全氟三丁胺 Perfluoro-tributylamine	wt%	≥80%	≥90%	≥99%
C ₉ -C ₁₂ 全氟杂质含量 C ₉ -C ₁₂ Perfluorine impurity content	wt%	≤19.8	≤9.8	≤0.98
含氢未完全氟化杂质含量 Impurity content with hydrogen of incomplete fluorination	wt%	≤0.1	≤0.1	≤0.01
沸程 Boiling range	℃	169-185℃	175-179℃	178-179℃
灼烧残渣 Ignition residue	wt%	≤0.1	≤0.1	≤0.01
介电常数 Dielectric constant	C ² /(N*M ²)	1.82	1.86	1.89
密度 Density	g/cm ³	1.83-1.89	1.85-1.89	1.88-1.89

3、产品用途 Application

全氟三丁胺可以用作为血液代用品，也是一种优良的介电绝缘液。此外，全氟三丁胺还可以作为导热冷却液、抗氧化润滑剂、化学反应稳定稀释剂等使用。

Perfluoro-tributylamine is used as a blood substitute and excellent dielectric insulating liquids. In addition, perfluoro-tributylamine can also be used as heat-conducting cooling fluid, anti-oxidation lubricant, chemical reaction stabilizing agent.

4、包装、贮藏 Packaging and storage

全氟三丁胺包装规格如下：小包装试剂为 500g 塑料瓶，5kg 塑料桶包装，25kg、50kg 钢塑桶包装。具体包装规格可根据用户要求定制更改。全氟三丁胺储存于阴凉、通风的库房，远离火种、热源，应与氧化剂、食用化学品、碱金属分开存放，切忌混储。

Packing specifications of perfluoro-tributylamine include plastic bottle of 500g,

plastic cask of 5kg, steel-plastic cask of 25kg, 50kg. Specific packaging specifications can be customized according to user requirements. Perfluoro-tributylamine is stored in a shady and ventilated storeroom away from fire and heat source. It should be separately stored with edible chemicals and alkali metal.