MOLYBDENUM OXIDE NANOPOWDER

Purity 99.9%

MoO₃

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Nanopowder of molybdenum has been utilized in different industrial fields in the form of lubricant additives, metallurgical additives, and powder sintering additives. It is also the raw material of electrical components, smoke suppressor and cleaner. Molybdenum trioxide is a chemical compound having formula MoO3. It occurs as the rare mineral molybdite. In this chemical compound, each molecule has one molybdenum atom with three oxygen atoms. Molybdenum oxide unique catalytic and electronic properties and also have the application in chemical synthesis, recording media, petroleum refining, and sensors. It is utilized in optical device applications and the most auspicious material for photoelectrochemical energy production due to high surface area and also having higher photo efficiencies. It is also believed that this compound has the potential to be an anti-bacterial agent and plays a role in waste management.

**Product** : Molybdenum Oxide Nanopowder

**Stock No** : NS6130-03-376

**CAS** : 1313-27-5

**Color** : White

**Form** : Powder

**Symbol** : MoO₃

**Group** : Molybdenum 6/Oxygen 16

**Electronic Configuration:**
Molybdenum [Kr] 4d⁵ 5s¹
Oxygen [He] 2s² 2p⁴

**APPLICATIONS**

- Utilized in catalysis.
- Employed as catalysts, cracking catalysts, and hydrogenation catalysts.
- Used in the industrial production of acrylonitrile
- Used in glass and ceramics production.
- Serves as an additive to steel and corrosion-resistant alloys
- Electrochemical applications
- Pigment applications
- In coatings, nanowires, nanofibers, plastics, and textiles

**ADDITIONAL POWDER CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Stock No.</th>
<th>Purity</th>
<th>APS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS6130-03-376</td>
<td>99.9%</td>
<td>&lt;80nm</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIFICATION**

<table>
<thead>
<tr>
<th>Molecular Formula</th>
<th>Molecular Weight</th>
<th>Density</th>
<th>Melting Point</th>
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</thead>
<tbody>
<tr>
<td>MoO₃</td>
<td>143.95 g/mol</td>
<td>4.69 g/cm³</td>
<td>795 °C</td>
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</tbody>
</table>

**CHEMICAL COMPOSITION**

<table>
<thead>
<tr>
<th>Product</th>
<th>Weight Percent (nominal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molybdenum Oxide Nanopowder</td>
<td>99.9%</td>
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<tr>
<td>Other Metal</td>
<td>1000ppm</td>
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</tbody>
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**ISO 9001:2015 CERTIFIED COMPANY**

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