## MANGANESE OXIDE NANOPOWDER




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Manganese oxide is an inorganic compound and it has high surface area. It is also shows cubic structure. This compound is synthesized by sol gel method, solvothermal treatment, and microemulsion. It is used in different fields such as in rechargeable lithium ion batteries, catalysts, soft magnetic materials. In addition, this compound is also utilized in magnetic storage devices, sensors and electronics.
Thus compound is also employed in waste water treatment, super capacitors. It is also used in batteries due to its low cost, special properties and environment benignity. These nanoparticles are utilized in various industries owing to its shapes, size and phases can be modified. It also shows magnetic, electric and catalytic properties.

## Quick FACTS

| Product | $:$ | Manganese Oxide Nanopowder |
| :--- | :--- | :--- |
| Stock No | $:$ | NS6130-03-384 |
| CAS | $:$ | $1317-35-7$ |
| Color | $:$ | Brown |
| Form | $:$ | Powder |
| Symbol | $:$ | $\mathrm{Mn}_{3} \mathrm{O}_{4}$ |
| Group | $:$ | Manganese 7/Oxygen 16 |

Electronic Configuration:
Manganese [Ar] 3d5 4s2
Oxygen [He] 2s2 2p4


ADDITIONAL POWDER CHAR^CTERISTICS

| Stock No. | Purity | APS |
| :--- | :--- | :--- |
| NS6130-03-384 | $99.9 \%$ | $10-20 \mathrm{~nm}$ |

TECHNICAL SPECIFICATION

| Molecular Formula | Molecular Weight | Density | Melting Point |
| :---: | :---: | :---: | :---: |
| $\mathrm{Mn}_{3} \mathrm{O}_{4}$ | $228.81 \mathrm{~g} / \mathrm{mol}$ | $4.86 \mathrm{~g} / \mathrm{cm}^{3}$ | $1705^{\circ} \mathrm{C}$ |

CHEMICAL COMPOSITION

| Product | Weight Percent (nominal) |  |
| :--- | :---: | :--- |
| Manganese Oxide <br> Nanopowder | $\mathrm{Mn}_{3} \mathrm{O}_{4}$ | Other Metal |



## APPLICATIONS

> Electronic components
> Bleaching agent
> Catalys $\dagger$
> Voltage sensitive material
> for magnetic data storage

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