

Material Safety Data Sheet

Hematite Powder

1. IDENTIFICATION OF THE PRODUCT

Product name: Iron (III) Oxide.

Trade name: HEMATITE

Formula: Fe₂O₃

Other/Generic names: Iron (III) Oxide; Red Iron Oxide; C.I. 77491; Iron Sesquioxide.

Application: Drilling fluid additives

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent
Iron Oxide	1309-37-1	99%
Clay Content	1332-58-7	<0.5%

3. HAZARDS IDENTIFICATION

Emergency Overview

WARNING! HARMFUL IF INHALED. AFFECTS RESPIRATORY SYSTEM. MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

Potential Health Effects

Skin Contact: No adverse effects expected.

Eye Contact: May cause mechanical irritation.

Ingestion: Extremely large oral dosages may produce gastrointestinal disturbances.

Inhalation: May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

Chronic Exposure: Long-term inhalation exposure to iron has resulted in mottling of the lungs, a condition referred to as siderosis. This is considered a benign pneumoconiosis and does not ordinarily cause significant physiological impairment. Long term eye exposures may stain the eyes and leave a "rust ring".

Aggravation of Pre-existing Conditions: Persons with impaired respiratory function may be more susceptible to the effects of the substance.

4. FIRST AID MEASURES

Skin Contact: Wash exposed area with soap and water. Get medical advice if irritation develops.

Eyes Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

Ingestion: If large amounts were swallowed, give water to drink and get medical advice.

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Use any means suitable for extinguishing surrounding fire.

Protective equipment: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Fire: Not expected to be a fire hazard.

Explosion: No information found.

<p>6. ACCIDENTAL RELEASE MEASURES</p> <p>Measures for personal safety: Wear appropriate personal protective equipment as specified in Section 8.</p> <p>Cleaning methods: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.</p>
<p>7. HANDLING AND STORAGE</p> <p>Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.</p>
<p>8. EXPOSURE CONTROLS/PERSONAL PROTECTION</p> <p>Precautionary measures:</p> <p>Respiratory protection:</p> <p>Skin Protection: Wear protective gloves and clean body-covering clothing.</p> <p>Eye protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.</p> <p>Exposure limit(s):</p> <p>OSHA Permissible Exposure Limit (PEL)</p> <p>Iron oxide fume: 10 mg/m³</p> <p>ACGIH Threshold Limit Value (TLV)</p> <p>Iron oxide dust and fume (Fe₂O₃) as Fe: 5 mg/m³ (TWA), inhalable particulate; for particulate matter containing no asbestos and < 1% crystalline silica.</p> <p>WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.</p>
<p>9. PHYSICAL AND CHEMICAL PROPERTIES</p> <p>Appearance: Reddish-brown powder.</p> <p>Odor: No information found.</p> <p>PH: No information found.</p> <p>Melting point: 1565C (2849F)</p> <p>Boiling point: No information found.</p> <p>Flash point: N/A</p> <p>Solubility in water: Negligible (< 0.1%)</p> <p>Specific Gravity: 5.24</p>
<p>10. STABILITY AND REACTIVITY</p> <p>Conditions to avoid: Incompatibles.</p> <p>Substance to avoid: Carbon monoxide, hydrazine, calcium hypochloride, performic acid, bromine pentafluoride.</p> <p>Hazardous decomposition products: No information found.</p> <p>Stability: Stable under ordinary conditions of use and storage.</p>
<p>11. TOXICOLOGICAL INFORMATION</p> <p>Acute oral toxicity on rats (LD₅₀): No LD₅₀/LC₅₀ information found relating to normal routes of occupational exposure.</p>
<p>12. ECHOLOGICAL INFORMATION</p> <p>Environmental Fate: No information found.</p> <p>Environmental Toxicity: No information found.</p>

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

Not regulated.

15. REGULATORY INFORMATION

Main general legislation if applicable, according to the international regulations.

16. OTHER INFORMATION

NFPA Ratings: Health: 1; Flammability: 0; Reactivity: 0.

WARNING! HARMFUL IF INHALED. AFFECTS RESPIRATORY SYSTEM. MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

Label Precautions:

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

Avoid breathing dust.

Keep container closed.

Use only with adequate ventilation.

Label First Aid:

If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.