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MATERIAL SAFETY DATA SHEET
COMPLIES WITH 29 CFR 1910.1200.
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 12-06-04

CHEMICAL IDENTITY

PRODUCT NAME	**IRON (III) OXIDE**
SYNONYMS	**FERRIC OXIDE, RED IRON OXIDE, IRON RED, IRON SESQUIOXIDE**
FORMULA	**Fe_2O_3**
CHEMICAL FAMILY	**METAL OXIDE**
CAS REGISTRY NUMBER	**1309-37-1**
HAZARDOUS INGREDIENTS	**PEL - 10mg/m^3** **TLV - 5mg/m^3** **% - 100%**

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	**Reddish powder/target; odorless**
BOILING POINT	**NA**
VAPOR DENSITY (air=1)	**NA**
VAPOR PRESSURE	**NA**
% VOLATILE BY VOLUME (%)	**NA**
REACTION WITH WATER	**NA**
EVAPORATION RATE (butyl acetate=1)	**NA**
SOLUBILITY IN WATER	**Insoluble**
FREEZING/MELTING POINT	**NA**

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	**NA**
AUTOIGNITION TEMPERATURE (°C)	**NA**
FLAMMABILITY	**NA**
EXTINGUISHING MEDIA	**Use fire fighting measures that suit the surrounding fire. Do not use water or carbon dioxide as extinguishing agent.**

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FIRE AND EXPLOSION HAZARD DATA CONTINUED

UNUSUAL FIRE & EXPLOSION HAZARDS **May have a violent reaction when heated with powdered aluminum, calcium disilicide, magnesium, and metal acetylides. Reacts explosively when heated with guanidinium perchlorate. Iron (III) Oxide has the potential to react violently with hydrogen peroxide and reaction with carbon monoxide may form an explosive product. The wet oxide may react explosively with molten aluminum-magnesium alloy.**

HEALTH HAZARD INFORMATION

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **ND**
EFFECTS OF OVEREXPOSURE (acute):

Ingestion: **None known**
Skin contact: **None known**
Eye contact: **May cause irritation.**
Inhalation: **May irritate upper respiratory tract. May cause acute iron poisoning. Acute iron poisoning may cause biphasic shock, a rapid increase in respiration and pulse rate, congestion of blood vessels which may lead to hypotension, pallor and drowsiness.**
Other health hazards: **None known**

EFFECTS OF OVEREXPOSURE (chronic):

Ingestion: **None known**
Skin contact: **Repeated or prolonged contact may cause irritation.**
Eye contact: **None Known**
Inhalation: **Prolonged exposure to dust may cause benign pneumoconiosis. May cause chronic iron poisoning. Effects include hemorragic necrosis of the gastrointestinal tract, hepatotoxicity, metabolic acidosis, prolonged blood clotting time and elevation of plasma levels or serotonin and histamine.**

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IRON OXIDE
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CARCINOGENICITY: **No** NTP: **No** IARC MONOGRAPHS: **No** OSHA REGULATE: **No**

EMERGENCY FIRST AID PROCEDURES:

INGESTION: **Give at last 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.**
INHALATION: **Remove to fresh air and give artificial respiration if not breathing.**
SKIN CONTACT: **Wash thoroughly with soap and water.**
EYE CONTACT: **Immediately flush eyes, including under eyelids, with large amounts of water for at least 15 minutes. Call a physician.**

REACTIVITY DATA

STABILITY: **Stable**
INCOMPATIBILITY (MATERIALS TO AVOID): **May have a violent reaction when heated with powdered aluminum, calcium disilicide, magnesium, and metal acetylides. Reacts explosively when heated with guanidinium perchlorate. Iron (III) Oxide has the potential to react violently with**
hydrogen peroxide and reaction with carbon monoxide may forma an explosive product. The wet oxide may react explosively with molten aluminum-magnesium alloys.

HAZARDOUS DECOMPOSITION PRODUCTS: **ND**
HAZARDOUS POLYMERIZATION: **Will Not Occur**
CONDITIONS TO AVOID: **Incompatibles**
OTHER: **ND**

SAFE HANDLING AND USE

RCRA Code: D010
TSCA Registered: Yes

SPILL AND LEAK PROCEDURES: **Wear protective clothing to protect against hazards such as overexposure to skin, eyes, and respiratory tract. Collect all material which may be rleased, into containers, label, and hold for proper disposal per local, state, and federal regulations.**

WASTE DISPOSAL METHOD: **Consult state, local or federal EPA regulations**

SPECIAL PROTECTIVE INFORMATION

VENTILATION REQUIREMENTS: **Laboratory fume hood or sufficient ventilation to ensure exposure remains below TLV/PEL.**
RESPIRATORY PROTECTION: **If there is dustiness, wear a respirator selected per OSHA standards.**
PROTECTIVE GLOVES: **Rubber**

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EYE PROTECTION: **Splash goggles, safety glasses, or face shields recommended.**
OTHER PROTECTIVE EQUIPMENT: **An apron, or other impermeable body protection suggested. Wash any contaminated clothing before reuse.**

SPECIAL PRECAUTIONS

HANDLING/STORAGE: **Keep container tightly closed. Store in a cool, dry, well-ventilated area. Wash thoroughly after use.**

OTHER PRECAUTIONS: **Lab coat and apron, flame and chemical resistant coveralls, eyewash capable of sustained flushing, safety drench shower and hygenic facilities for washing.**

WARNING: **Dust may irritate eyes and respiratory tract.**

TRANSPORTATION REQUIREMENTS

DOT CLASS: **NA**
UN NUMBER: **NA**
IMCO CLASS: **NA**
OTHER: **NA**

PRECAUTIONARY LABELING: This product contains Selenium which is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-know Act of 1986 and 40CFR 372.

NA= NOT APPLICABLE **ND= NO DATA FOUND**