



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Iron (III) oxide**
PRODUCT NUMBER: 2081
CAS NUMBER: 1309-37-1
SYNONYMS: Iron oxide, Ferric oxide, red iron oxide, iron sesquioxide

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Warning

Hazard Statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary Phrases

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362	Take off contaminated clothing and wash before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

HMIS CLASSIFICATION:

Health: 1 Flammability: 0 Reactivity: 1

NFPA RATING:

Health: 1 Fire: 0 Reactivity Hazard: 1

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: May be a mild to severe irritant to the eyes.

SKIN CONTACT: May cause slight irritation and dryness of the skin.

INHALATION: Do not breathe dust. Inhalation of powder may lead to irritation of the respiratory tract.

INGESTION: May be harmful if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Fe₂O₃

Molecular Weight: 159.69

CHEMICAL NAME	CAS#	%	ACGIH (TWA)	OSHA (PEL)
Iron (III) oxide	1309-37-1	100	5 mg/m ³ (as Fe ₂ O ₃)	10 mg/m ³ (as fume)

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: None

EXPLOSION LIMITS: None

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive self-contained breathing apparatus, flame and chemical resistant clothing, hats, boots, and gloves.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: No hazardous decomposition products.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear approved personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS: Do not let product enter drains or allow to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Small spills can be mixed with vermiculite or sodium carbonate and swept up.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with skin and eyes. Avoid formation of dust. Provide appropriate exhaust ventilation.

CONDITIONS FOR SAFE STORAGE: Store material in a tightly sealed container.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EYE PROTECTION: Always wear approved safety glasses with side shields, safety goggles, or face shield when handling a chemical substance in the laboratory.

SKIN PROTECTION: Chemical resistant gloves.

VENTILATION: Handle in an efficient chemical fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Red-brown powder
MOLECULAR WEIGHT: 159.69
BOILING POINT: No data available
MELTING POINT: 1566° C
SPECIFIC GRAVITY: 5.24 gm/ml
VAPOR PRESSURE: Not applicable
SOLUBILITY: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Air and moisture stable
HAZARDOUS POLYMERIZATION: No hazardous polymerization
CONDITIONS TO AVOID: No data available
INCOMPATIBILITY: Powdered aluminum, hydrazine, ethylene oxide, calcium hypochlorite, magnesium, strong acids, strong oxidizing agents.
DECOMPOSITION PRODUCTS: No data available

SECTION 11 TOXICOLOGICAL DATA

RTECS DATA: Subcutaneous (dog); LDLo: 30 mg/kg. Inhalation (rat); TCLo: 500 ug/m³/24H/61D-C. Subcutaneous (rat); TDLo: 13: mg/kg.
CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified as a confirmed carcinogen by IARC, ACGIH, NTP, and OSHA.
MUTAGENIC EFFECTS: Not available
TETRATOGENIC EFFECTS: Not available

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

No information available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

Non-hazardous material

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 313 COMPONENTS: This material does not contain any chemical components with know CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 302 COMPONENTS: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 HAZARDS: Acute Health Hazard

MASSACHUSETTS RIGHT TO KNOW COMPONENTS: Diiron trioxide

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Diiron trioxide

NEW JERSEY RIGHT TO KNOW COMPONENTS: Diiron trioxide

SECTION 15 REGULATORY INFORMATION (Cont.)

CALIFORNIA PROP. 65 COMPONENTS: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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