



MSDS – Red Iron Oxide

April 20, 2009

1. Identification

Synonyms: Ferric Oxide, Red Iron Oxide, Iron Sesquioxide
CAS No.: 1309-37-1
Distributed by: Pestell Minerals & Ingredients, New Hamburg, ON Can.
Emergency Response: CANUTEC: (24 Hrs) 613:996-6666

2. Composition/Information on Ingredients

Iron Oxide: (60%) CAS No.: 1309-37-1

3. Hazards Identification

Emergency Overview

Appearance: Redish brown powder
Warning!! Harmful if inhaled. Affects respiratory system. May cause irritation to eyes and respiratory tract

Flammability None

Lab Protective Equip. Goggles, Lab Coat

Potential Health Effects:

Eyes 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 Long term inhalation exposure to iron has resulted in mottling of the lungs, a condition referred to siderosis. This is considered a benign pneumoconiosis and does not ordinarily cause significant physiological impairment. Long term eye exposures may stain the eye and leave a rust ring. Long term overexposure to silica causes silicosis, a form of pulmonary fibrosis. Continued exposure to silica can lead to cardiopulmonary impairment. There is sufficient evidence to conclude that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans.

4. First Aid Measures

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

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

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

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

5. Fire Fighting Measures

Fire:	Not expected to be a fire hazard
Fire Extinguishing Media	Use any means suitable for extinguishing surrounding fire
Other Information:	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.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. **Spills:** Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

7. Handling and Storage

:	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.
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8. Exposure Controls/Personal Protection

Airborne Exposure Limits	OSHA Permissible Exposure Limit (PEL) – Iron oxide fume: 10 mg/m ³ – ACGIH Threshold Limit Value (TLV)
Iron Oxide Dust/Fumes	(FeO ₃) as Fe: 5 mg/m ³ (TWA), inhalable particulate; for particulate matter containing no asbestos and <1% crystalline silica, A4 – Not classified as a human carcinogen.
Ventilation System	A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation A Manual of Recommended Practices, most recent edition for details.
Personal Respirators	(NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particulates (eg. Lubricants, cutting fluid, glycerine, etc) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full facepiece positive pressure, air supplied respirator. WARNING!! Air purifying respirators do not protect workers in oxygen deficient atmospheres.
Skin Protection	Wear protective gloves and clean body covering clothing
Eye Protection:	Use chemical safety goggles. Maintain eyewash fountain and quick drench facilities in work area.

9. Physical and Chemical Properties

Appearance:	Reddish brown powder
Solubility	Negligible (<0.1%)
pH:	No information found

Vapor Density	Not applicable
Evaporation Rate	Not applicable
Odor	No information found
Specific Gravity	5.24
% Volatiles by volume	@ 21C (70F):0
Melting Point	1565C (2849F)

10. Stability and Reactivity

Stability:	Stable under ordinary conditions of use and storage
Hazardous Decomposition	No information found
Hazardous Polymerization:	Will not occur
Incompatibilities:	Carbon monoxide, hydrazine, calcium hypochloride, performic acid, bromine pentafluoride

11. Environmental Information:

Environmental Fate:	No information found
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12. Toxicological Information

Iron Oxide:	NTP Carcinogen: Known: Yes	Anticipated: Yes
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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.
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14. Transport Information

Not regulated

15. Regulatory Information

	Chemical Inventory Status (Fe2O3 (1309-37-1 – Canada – Yes)
	Federal, State & International Regulations: CERCLA: No 261.33: No
Chemical Weapons Convent	No
CDTA.	No
Chronic	Yes
Pressure	No (Pure/Solid)
TSCA 12(b)	No
SARA 311/312:	Acute: Yes
WHMIS	This MSDS has been prepared according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

16. Other Information

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

Label Hazard Warning: 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.

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