



A Division of Stream Restoration Incorporated (Non-Profit)  
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# Material Safety Data Sheet

Updated: 7/14/2011

## Recovered Iron Oxide Powder – Iron Oxide MSDS Number: CCP-01

### I. Product and Company Information

Product Name(s)            Recovered Iron Oxide Powder – Iron Oxide

Product Number(s)        CCP-01

Company                      Clean Creek Products  
                                       [a division of Stream Restoration Incorporated (Non-Profit)]  
                                       434 Spring Street Ext., Mars, PA 16046  
                                       United States of America

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### II. Composition / Information on Ingredients

CAS No.                      20344-49-4

EINECS No.                243-746-4

Product Name              Recovered Iron Oxide Powder – Iron Oxide

Synonyms                    Brown ochre, C.I. Pigment Yellow 42, Ferric Hydroxide Oxide, Iron (III) Oxide Hydrated, Yellow Iron Oxide, Yellow-boy, Goethite

Chemical Name            Ferric Oxyhydroxide

Chemical Formula        FeO(OH)

Major Oxides Present (raw material)				
Product	% Iron Oxide	% SiO <sub>2</sub> *	% Al <sub>2</sub> O <sub>3</sub>	% SO <sub>3</sub>
Recovered Iron Oxide CCP-01	54 - 63	0.4 - 13	3 - 5	3 - 10
CAS No.	20344-49-4	14808-60-7	1344-28-1	7446-11-9

*\*Naturally occurring Crystalline Silica which may likely be present in quantities greater than 0.1% for this product has been reviewed by IARC. IARC believes there is sufficient evidence to conclude that Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans.*

*Exposure Limits for Quartz [OSHA PEL: 10mg/M<sup>3</sup>TWA;ACGIH TLV: 0.1 mg/M<sup>3</sup>TWA]*

### III. Hazards Identification

Hazards Identification	Contains Crystalline Silica (CAS #14808-60-7)
Potential Health Effects	Information concerning the hazards of this product was limited. Skin contact may cause mechanical irritation due to the abrasion. Eye contact will result in no specific effects other than general particulate irritation in the eye. Not absorbed by the body. Excessive exposure above the TLV can give mild pulmonary irritation.
Inhalation	Dust may cause irritation to respiratory tract; symptoms may include coughing, sore throat, and shortness of breath.
Ingestion	None known
Skin Contact	May cause mechanical abrasion irritation
Eye Contact	May cause mechanical abrasion irritation, redness, pain, blurred vision, and discoloration.
Chronic Exposure	Prolonged inhalation of iron oxide dust is known to produce a condition known as siderosis. On X-rays it appears to be a benign pneumoconiosis and is not associated with pulmonary fibrosis or disability unless there is concurrent exposure to other fibrosis producing materials such as silica. Long term overexposure to silica causes silicosis, a form of pulmonary fibrosis. Continued exposure to silica can lead to cardiopulmonary impairment.
Aggravation of Pre-existing Conditions	Persons with pre-existing impaired pulmonary function may be more susceptible to the effects of this material.

### IV. First Aid Measures

After Inhalation	Remove to fresh air. Obtain medical help for any breathing difficulty
After Skin Contact	Wash skin thoroughly with mild soap and water
After Eye Contact	Immediately flush eyes with plenty water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical help if irritation persists
After Ingestion	Dilute with water to induce vomiting as directed

by medical personnel. Never give anything by mouth to and unconscious person.

## V. Fire Fighting Measures

Fire	Not considered to be a fire hazard
Explosion	Not considered to be an explosion hazard
Extinguishing Media	Material will not support combustion
Special Risks	Does not produce toxic effects
Special Protective Equipment for Firefighters	NIOSH – approved respirators to avoid dust inhalation

## VI. Accident Release Measures

Personal Precautions & Procedures	Wear NIOSH approve dust mask/respirator and safety glasses
Methods for Spill Cleanup	Ventilate area of spill. Wear appropriate personal protective equipment as specified in Section VIII (exposure controls/personal protection). Individuals involved in cleanup should use respiratory protection for airborne dust. For spills: pick up and place material in a suitable container for reclamation or disposal, using a method that does not generate excess dust. Wetting the spill with a water spray may help to keep the airborne dust levels down. Wash the spill area after material pickup is complete. Material is not considered to be hazardous to the environment.

## VII. Handling and Storage

Handling	Do not breathe dust. Good industrial hygiene practice requires that employee exposure be maintained below TLV. This is preferably achieved through the provision of adequate ventilation where necessary. Where dust cannot be controlled in this way, personal respiratory protection should be employed.
Storage	Keep in a tightly closed container, store in a cool, dry, ventilated area.

## VIII. Exposure Controls / Personal Protection

Airborne Exposure Limits	OSHA Permissible Exposure Limit (PEL): 10 mg/m <sup>3</sup> iron oxide fume as Fe
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	ACGIH Threshold Limit Value (TLV): 5 mg/m <sup>3</sup> (TWA) iron oxide fume as Fe
General Hygiene Measures	Wash thoroughly with soap and water.
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 into the general work area. Please refer to the ACGIH document, <i>Industrial Ventilation, A Manual of Recommended Practices</i> , most recent edition, for details.
Personal Respirators (NIOSH Approved)	If exposure limits are exceeded, use NIOSH-approved dust mask/respirators to avoid breathing dust
Skin Protection	Use leather or rubber gloves
Eye Protection	Use safety glasses with side shields or dust tight goggles to avoid eye irritation.

## IX. Physical and Chemical Properties

Appearance	Physical State: Solid Color: Yellow-Brown Form: Fine Powder Typical -200 Mesh (varies upon request)
Odor	Odorless
pH Value	3-9
Boiling Point	N/A
Melting Point	N/A
Flash Point	N/A
Flammability	N/A
Autoignition Temperature	N/A
Explosive Properties	N/A
Explosive Limits	N/A

Vapor Pressure (mm Hg)	N/A
Vapor Density (Air=1)	N/A
Solubility	Insoluble in water
Specific Gravity (Water=1)	2.25 – 5.0
Viscosity	N/A
Evaporation Rate (BuAc=1)	N/A
Bulk Density	N/A
Decomposition Temperature	N/A

## X. Stability and Reactivity

Stability	Stable under ordinary conditions of use and storage
Hazardous Decomposition Products	None
Hazardous Polymerization	Will not occur
Incompatibilities	Aluminum powder, calcium hypochlorite, strong acids, and strong oxidizing agents
Conditions to Avoid	Incompatibilities, as well as damp storage conditions

## XI. Toxicological Information

Toxicological testing has not been conducted with this product, at the current time. For reference the acute oral toxicity LD<sub>50</sub> oral (RAT) for other iron oxides is > 10 g/kg (RAT).

## XII. Ecological Information

Environmental Fate	Not hazardous to the environment
Environmental Toxicity	Not hazardous to the environment

*\*No harmful effects known other than those associated with suspended inert solids in aquatic environments.*

## XIII. Disposal Considerations

Substance Disposal	Consult a local expert for advice on the disposal of the material. State and local disposal regulations may differ from federal disposal
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regulations. Dispose of container and unused contents in accordance with federal, state, and local requirements.

#### XIV. Transport Information

RID/ADR	Non-hazardous for road transport
IMDG	Non-hazardous for sea transport
IATA	Non-hazardous for air transport

#### XV. Regulatory Information

Designation according to EU guidelines	The material is not subject to classification according to the EEC Directive 67/548/EEC. This is a natural product.
WHMIS	This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

#### XVI. Additional Information

NFPA Ratings	Health: 1 Flammability: 0 Reactivity: 0
Label Hazard Warning	WARNING! BREATHING DUSTS MAY CAUSE IRRITATION TO RESPIRATORY TRACT.
Label Precautions	Keep container closed. Use only with adequate ventilation.
Label First Aid	If swallowed, dilute with water and induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If in eyes, flush eyes with plenty water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical help if irritation persists after any exposure.
Product Use	Artisan Use

**WARRANTY:** This information was last updated on 14<sup>th</sup> of July 2011. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge about this and other similar products with regards to appropriate health and safety precautions. It does not represent any guarantee of the properties of the product. Clean Creek Products and Stream Restoration Incorporated shall not be held liable for any damage resulting from handling, storage, disposal, or from contact with the above product. It is the users' responsibility to determine the suitability of this product and the relevance of this information for their use.