

RED IRON OXIDE

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## 1. IDENTIFICATION

**Product identifier**

**Product Name** RED IRON OXIDE

**Other means of identification**

**Product Code** RED IRON OXIDE

**Synonyms** Synthetic Iron Oxide, Iron Oxide, Diiron Trioxide CP-413, CP-415, CP-417, CP-429

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Coloring agent for Concrete.

**Uses advised against** Consumer use

**Details of the supplier of the safety data sheet**

**Supplier Address**

Solomon Colors, Inc.  
4050 Color Plant Road  
Springfield, IL  
62702

**Manufacturer Address**

Solomon Colors, Inc.  
4050 Color Plant Road  
Springfield, IL  
62702

**Company Phone Number** 800-624-0261 (US & Canada); 217-522-3112 (Outside North America)

**24 Hour Emergency Phone Number** 800-373-7542

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

This product is NOT classified as hazardous according to the criteria contained in the Hazard Communication Standard 29 CFR 1910.1200 (known as HCS 2012) or the Hazardous Products Regulations SOR/2015-17 (known as WHMIS 2015).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**Label elements**

**Emergency Overview**

Health injuries are not known or expected under normal use.

**Appearance** Red Powder

**Physical state** Powder

**Odor** Odorless

**Hazards not otherwise classified (HNOC)**

**Other Information**

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** Synthetic Iron Oxide, Iron Oxide, Diiron Trioxide, CP-413, CP-415, CP-417, CP-429.

Formula Fe2O3

Chemical Name	CAS No.	Weight-%	Trade Secret
Red Iron Oxide	1309-37-1	95 - 100	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### Description of first aid measures

**General advice** No hazards which require special first aid measures. If symptoms persist, call a physician.

**Eye contact** Rinse thoroughly with plenty of water, also under the eyelids.

**Skin Contact** Wash off immediately with plenty of water.

**Inhalation** Remove to fresh air. If symptoms persist, call a physician.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

##### Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

##### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Dry chemical, Carbon Dioxide, Foam, Sand. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

##### Specific hazards arising from the chemical

No information available.

**Hazardous combustion products** Thermal decomposition can lead to the release of irritating gases and vapors. Carbon monoxide. Carbon dioxide (CO2).

##### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Avoid creating dust.

## Environmental precautions

**Environmental precautions** See Section 12 for additional ecological information.

## Methods and material for containment and cleaning up

**Methods for containment** Vacuum or sweep up material and place in a designated labeled waste container. Prevent further leakage or spillage if safe to do so. Prevent dust cloud.

**Methods for cleaning up** With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Take up with sand, earth or other non-combustible absorbent material. Use personal protective equipment as required.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible materials** Strong oxidizing agents. Strong acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Red Iron Oxide 1309-37-1	TWA: 5 mg/m <sup>3</sup> respirable particulate matter	TWA: 10 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> fume and total dust Iron oxide (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction regulated under Rouge	IDLH: 2500 mg/m <sup>3</sup> Fe dust and fume TWA: 5 mg/m <sup>3</sup> Fe dust and fume

*NIOSH IDLH Immediately Dangerous to Life or Health*

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

### Appropriate engineering controls

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective gloves and protective clothing. Protective shoes or boots.

**Respiratory protection** In case of inadequate ventilation wear respiratory protection.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended. Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Powder	<b>Odor</b>	Odorless
<b>Appearance</b>	Red Powder	<b>Odor threshold</b>	Not applicable
<b>Color</b>	Red		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	3.0-8.0	
Melting point/freezing point	>1000°C (1832°F)	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	4.0 - 5.0	
Water solubility	Insoluble	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

### Other Information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

None under normal processing.

**Hazardous polymerization**      None under normal processing.

### Conditions to avoid

Extremes of temperature and direct sunlight.

### Incompatible materials

Strong oxidizing agents. Strong acids.

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	May cause mechanical irritation (abrasion).
<b>Skin Contact</b>	May cause mechanical irritation (abrasion).
<b>Ingestion</b>	Not for human consumption. May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Red Iron Oxide 1309-37-1	> 10000 mg/kg ( Rat )	-	-

### Information on toxicological effects

**Symptoms** No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	Not classified. (Based on mixture components).
<b>Serious eye damage/eye irritation</b>	Not classified. (Based on mixture components).
<b>Sensitization</b>	Not Classified. This product does not contain known sensitizers at levels > or equal to 0.1%.
<b>Germ cell mutagenicity</b>	Not classified. (Based on mixture components).
<b>Carcinogenicity</b>	Not classified. (Based on mixture components). The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Red Iron Oxide 1309-37-1	-	Group 3	-	-

IARC (International Agency for Research on Cancer)  
*Group 3 - Not Classifiable as to Carcinogenicity in Humans*

<b>Reproductive toxicity</b>	Not classified. (Based on mixture components).
<b>STOT - single exposure</b>	Not classified. (Based on mixture components).
<b>STOT - repeated exposure</b>	Not classified. (Based on mixture components).
<b>Aspiration hazard</b>	Not applicable.

### Numerical measures of toxicity - Product Information

**ATEmix (oral)** 10537

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

This product has not been fully evaluated on the product level.

### Persistence and degradability

No information available.

### Bioaccumulation

No information available.

### Other adverse effects

No known significant effects or critical hazards.

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

#### **Disposal of wastes**

This material, as supplied, is not a hazardous waste according to state and federal regulations (40 CFR 261). Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### **Contaminated packaging**

Do not reuse container.

### 14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO (air)</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

See section 2 for more information

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

<b>Chemical Name</b>	<b>New Jersey</b>	<b>Massachusetts</b>	<b>Pennsylvania</b>
Red Iron Oxide 1309-37-1	X	X	X

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<u>NFPA</u>	Health hazards 0	Flammability 1	Reactivity 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

Prepared By Solomon Colors - Lab Technical Services  
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Revision Note  
Periodic Review

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**