




SAFETY DATA SHEET

Effective Date: 06/01/2024
Replaces: June 2018

Magnetite

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION	
Product Name: Magnetite	CAS #: Mixture
Synonyms/Common Names: Black sand, Ferrous (Iron) Oxide Fe ₂ O ₃	
Manufacturer/Contact Info: Teichert Aggregates PO Box 15002 Sacramento, CA 95851	General Phone Number: (916) 484-3011 (8-5, PST, M-F) Emergency Phone Number: (800) 287-7383

SECTION 2. HAZARDS IDENTIFICATION
EMERGENCY OVERVIEW May cause irritation due to abrasion effects. May cause respiratory irritation.
OSHA REGULATORY STATUS This product is considered hazardous under Hazard Communication 29 CFR 1910.1200 (OSHA) and 8CCR §5194 (Cal/OSHA)
POTENTIAL HEALTH EFFECTS
Routes of Exposure: Inhalation. Skin contact. Eye contact.
Eye Contact: May cause irritation through mechanical abrasion.
Skin: May cause irritation through mechanical abrasion.
Inhalation: Inhalation of high concentrations may result in transient irritation and coughing. Prolonged and repeated exposure to high concentrations of respirable silica quartz dust could lead to lung disease including chronic pulmonary obstructive disease and silicosis.
Ingestion: Ingestion may cause gastrointestinal irritation and malaise. However, ingestion is not likely to be a primary route of occupational exposure.
TARGET ORGANS Respiratory system, lungs.
CHRONIC EFFECTS Chronic inhalation of high concentrations of iron oxide fumes or dust may lead to benign pneumoconiosis (siderosis). Prolonged and repeated exposure to high concentrations of respirable silica quartz could lead to lung disease including chronic pulmonary obstructive disease and silicosis.
GHS label elements

Hazard Statements: May cause irritation of eyes and skin May cause respiratory irritation

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS				
Hazardous Components	CAS No.	% by Weight	PEL	TLV
Magnetite (Iron Oxide)	1309-38-2	80	N/E	N/E
Hematite (Iron Oxide)	1317-60-8	15	N/E	5 mg/m ³ ***
Chromite	1308-31-2	2	N/E	N/E**
Ferromagnesian silicate	N/A	2	N/E*	N/E**
Ilmenite	12168-52-4	<1	N/E*	N/E**
Maghemite	N/A	<1	N/E*	N/E**
Quartz (Silica Crystalline) ⁽¹⁾	14808-60-7	<10		

*Most relevant limits are those established for particulates not otherwise regulated: 10mg/m³*** (TOTAL DUST), 5mg/m³*** (RESPIRABLE FRACTION)
Most Relevant limits are those established for particulates not otherwise specified: 10 mg/m³* (TOTAL DUST), 3mg/m³*** (RESPIRABLE FRACTION)
***AS IRON OXIDE DUST/FUME

Comments:
(1) Quartz is a naturally occurring form of crystalline silica. Composition varies naturally.

SIGNS AND SYMPTOMS
Eye, skin and respiratory system irritation.

POTENTIAL ENVIRONMENT EFFECTS
The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment

SECTION 4. FIRST AID MEASURES			
Eyes: Flush thoroughly with water. If irritation occurs, get medical assistance.			
Skin: Wash area with soap and water. Get medical attention if irritation develops or persists.			
Inhalation: Remove to fresh air. Get medical attention if any discomfort continues.			
Ingestion: Seek medical advice. If ingestion of a large amount does occur, call a poison control center immediately. However, ingestion of small amounts of the material is not expected to pose a significant health hazard.			
Notes to Physician: Keep victim under observation. Symptoms may be delayed. Pre-existing respiratory conditions, such as bronchitis may be aggravated by inhalation exposure.			
General Advice: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.			
SUSPECTED CANCER AGENT?	NO FEDERAL OSHA	NO NTP	NO IARC

SECTION 5. FIRE FIGHTING MEASURES			
Flammable Properties: Concentrated suspensions of fine particles in air may be ignitable/explosive.	Flashpoint (method used): Product: NE	Flammable Limits in Air (% volume in air): Not available	
		LEL: NE	UEL: NE
Extinguishing Media: Water fog. Foam. Carbon dioxide (CO2).			
Protection of Firefighters: Cool containers with flooding quantities of water until well after fire is out.			
Unusual Fire and Explosion Hazards: Concentrated suspensions of fine particles in air may be ignitable/explosive.			
GHS label elements			



Signal word:
 Danger
Hazard Statements:
 May be ignitable/explosive

Specific Methods:
 Containers close to fire should be removed or cooled with water.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:
 Avoid inhalation of dust.

Environmental Precautions:
 Do not contaminate water sources or sewer.

Methods for Clean Up:
 Sweep up or gather material and place in appropriate container for disposal. Avoid dust formation.

SECTION 7. HANDLING AND STORAGE

Handling:
 Avoid inhalation of dust and contact with skin and eyes. Use with adequate ventilation. Wash thoroughly after handling. Avoid release to the environment.

Storage:
 Use care in handling/storage. Store in accordance with local, state and federal regulations

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	OSHA/MSHA Permissible Exposure Limit (PEL)	Cal/OSHA Permissible Exposure Limit (PEL)	ACGIH Threshold Limit Value (TLV)
Iron Oxide	10 mg/m ³ (fume)	5 mg/m ³ (fume)	5 mg/m ³ (respirable)
Particulates (dust)	5 mg/m ³ (respirable) a particulate NOR 15 mg/m ³ (total dust) as particulate NOR	5 mg/m ³ (respirable) a particulate NOR 10 mg/m ³ (total dust) a particulate NOR	3 mg/m ³ (respirable) 10 mg/m ³ (inhalable)
Crystalline Silica (Quartz, Cristobalite, Tridymite) (respirable particulate containing silica)	10 mg/m ³ / (%SiO ₂ +2) OSHA PEL for cristobalite and tridymite is ½ of the calculated value for quartz.	0.1 mg/m ³ (respirable quartz), 0.05 mg/m ³ (respirable cristobalite and tridymite)	0.025 mg/m ³ (respirable quartz and cristobalite)
Total dust containing silica	OSHA: 30 mg/m ³ /(%SiO ₂ +2) (total particulate containing silica) MSHA: 30 mg/m ³ / (%SiO ₂ +2)	0.3 mg/m ³ (total dust quartz)	NE

Engineering Controls:
 Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of dust.

PERSONAL PROTECTIVE EQUIPMENT:

Eye / Face Protection:
 Wear approved safety goggles.

Skin Protection:
 Wear suitable protective clothing and gloves. Leather work gloves are appropriate

Respiratory Protection:
 In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.

General Hygiene Considerations:
 Keep away from food, drink and animal feeding stuffs. Observe good industrial hygiene practices. As needed, wear coveralls and/or work clothing

that minimizes skin contact. Use work practices that minimize routine respiratory, skin and eye contact.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor:

Fine, Black particulate with metallic luster, Odorless

pH: Not available	Melting Point: Not available	Boiling Point: Not available
Evaporation Rate: Not available	Vapor Pressure: Not available	Vapor Density: Not available
Specific Gravity: 4.5 – 5	Solubility (water): 0	

SECTION 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Chemical Stability:

Stable at normal conditions

Conditions to Avoid:

None known

Incompatible Materials:

Aluminum, Magnesium, Calcium powders, Hydrogen peroxide.

Hazardous Decomposition Products:

Metal oxides

Hazardous Polymerization:

Hazardous polymerization does not occur.

SECTION 11. TOXICOLOGY INFORMATION

Sensitization:

Not available

Local Effects:

Airborne particles can cause eye and/or skin irritation. Inhalation of high levels of airborne dust may produce coughing and respiratory irritation.

Chronic Effects:

Chronic inhalation of high concentrations of iron oxide fumes or dust may lead to benign pneumoconiosis (siderosis).

Carcinogenicity:

Not expected to be hazardous by OSHA criteria.

IARC Monographs on Occupational Exposures to Chemical Agents: Overall evaluation

Quartz [Silica Crystalline] (14808-60-7) 1 Human carcinogen

US ACGIH Threshold Limit Values: A2 carcinogen

Quartz [Silica Crystalline] (14808-60-7) Group A2 Suspected human carcinogen

US NTP Report on Carcinogens: Known carcinogen

Quartz [Silica Crystalline] (14808-60-7) Known carcinogen

SECTION 12. ECOLOGICAL INFORMATION

Environmental Effects:

Not available

Other:

Not available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Instructions:

Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous

waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

Waste from Residues / Unused Products:

Dispose of waste and residues in accordance with local, state and federal requirements.

SECTION 14. TRANSPORT INFORMATION [NOTE: NOT INTENDED TO BE ALL-INCLUSIVE]

DOT Proper Shipping Name:

Not regulated

DOT Hazard Classification:

Not applicable

US/NA Number:

Not regulated

DOT Packing Group:

Not applicable

Labeling Requirements:

Label as required by the OSHA Hazard Communication standard 29CFR 1910.1200(f), MSHA Hazard Communication standard (30 CFR Part 47) and applicable state and local regulations.

SECTION 15. REGULATORY INFORMATION [NOTE: NOT INTENDED TO BE ALL-INCLUSIVE]

US Federal Regulations:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200 (OSHA) and 8 CCR § 5194 (Cal/OSHA).

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Not applicable

Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III:

Hazardous Categories:

Immediate Hazard – Yes
Delayed Hazard – Yes
Fire Hazard – No
Pressure Hazard – No
Reactivity Hazard – No


Section 302 Extremely Hazardous Substance:

No

Section 311 Hazardous Chemical

Yes

California Proposition 65:

 **WARNING:** This product can expose you to chemicals including crystalline silica, which are known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

State Regulatory Lists:

The following materials/components are specifically listed by individual states. For details on regulatory requirements, you should contact the appropriate agency in your state:

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Quartz [Silica crystalline] (14808-60-7) Listed

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Quartz [Silica crystalline] (14808-60-7) Listed: October 1, 1988 Carcinogenic

SECTION 16. OTHER INFORMATION

Disclaimer of Liability:

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