



Safety Data Sheet

Section 1: Identification

Product Identifier

Product Name - Magnetite/Coal Float
Synonyms - Iron Oxide, Black Iron Oxide, Iron Ore Concentrate, Magnetite Black, Black Iron

Relevant identified uses of the substance or mixture and uses advised against

Recommended use - Coal Float

Details of the supplier of the safety data sheet

Manufacturer Global Magnetite, LLC
PMB 11
3735 Palomar Centre Dr., Suite 150
Lexington, KY 40513-1147

Telephone (general) (859) 608-4260

Emergency telephone number

Manufacturer (859) 608-4260

Section 2: Hazard Identification

United States (US)

According to the OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 - Carcinogenicity 1A – H350

Label elements

OSHA HCS 2012

DANGER



Hazard statements - May cause cancer – H350

Precautionary statements

Prevention - Obtain special instructions before use. – P201
Do not handle until all safety precautions have been read and understood. – P202
Wear protective gloves, clothing, and eye/face protection. – P280

Response - If exposed or concerned: Get medical advice/attention. – P308+P313

Storage/Disposal - Store locked up. – P405
Dispose of content and/or container in accordance with local, regional, national, and/or International regulations. – P501

Other hazards

OSHA HCS 2012 - Under United States Regulations (29 CFR 1910.1200 – Hazard Communication Standard), this product is considered hazardous.

Section 3: Composition/Information on Ingredients

Substances - Material does not meet the criteria of a substance

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulations/Directive	Comments
Iron oxide	CAS: 1317-61-9	98.1%	NDA	OSHA HCS 2012: Not Classified	NDA
Quartz	CAS: 14808-60-7	0.9%	NDA	OSHA HCS 2012: Carc. 1A; STOT RE (Lungs, Inhl)	NDA

Section 4: First Aid Measures

Description of first aid measures

Inhalation - Move affected person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if affected person is not breathing.

Skin - In case of contact with substance, rinse with water.

Eye - In case of contact with substance, rinse with water.

Ingestion - Rinse mouth. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

-Refer to Section 11 – Toxicological Information

Indication of any immediate medical attention and special treatment needed

Notes to physician - No specific actions or treatments recommended related to exposure to this material.

Section 5: Fire Fighting Measures

Extinguishing media

Suitable extinguishing media- Dry chemical, carbon dioxide, water spray or foam

Unsuitable extinguishing media - No data available

Special hazards arising from the substance or mixture

Unusual fire and explosion hazards - Material is non-combustible and is not expected to pose a fire or explosion hazard.

Hazardous combustion products - No data available

Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).
Structural firefighters' protective clothing will only provide limited protection.
Wear chemical protective clothing that is specifically recommended by the manufacturer.
It may provide little or no thermal protection.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal precautions** - Use appropriate Personal Protective Equipment (PPE). Do not breathe dust.
Emergency procedures - Contain spill and monitor for excessive dust accumulation.

- Environmental precautions** - Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

- Containment/Clean-up measures** - Sweep up and remove immediately. Avoid generating dust.

- Reference to other sections** - Refer to Section 8 – Exposure Controls/Personal Protection and Sections 13 – Disposal Considerations.

Section 7: Handling and Storage

Precautions for safe handling

- Handling** - Avoid breathing dust in excess of applicable silica exposure levels.

Conditions for safe storage, including any incompatibilities

- Storage** - Store in a well ventilated space.

- Specific end use(s)** - Refer to Section 1.2 – Relevant identified uses.

Section 8: Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines			
	Results	ACGIH	NIOSH
Quartz (14808-60-7)	TWAs	0.025 mg/m ³ TWA (respirable fraction)	0.05 mg/m ³ TWA (respirable dust)

Exposure Limits Supplemental (OSHA)

- Quartz (14808-60-7): Mineral Dusts: ((30)/(%SiO₂ + 2) mg/m³ TWA, total dust; (250)/(%SiO₂ + 5) mppcf TWA, respirable fraction; (10)/(%SiO₂ + 2) mg/m³ TWA, respirable fraction)

Exposure controls

- Engineering measures/controls** - Avoid creating dust or reduce dust emissions with engineering controls. Dilution ventilation. Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment

Respiratory

- For limited exposure use an N95 mask. For prolonged exposure use an air purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Hands

- Wear appropriate gloves.

Skin/Body

- Wear long sleeves and/or protective coveralls.

Environmental exposure controls - Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-weighted Averages are based on 8^h/day, 40 hr/week exposures

Section 9: Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Gray to black powder, odorless
Color	Gray to Black	Odor	Odorless
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point	No data available
Decomposition Temperature	No data available	pH	Not relevant
Specific Gravity/Relative Density	5.1 Water=1	Water Solubility	Insoluble
Viscosity	Not relevant		
Volatility			
Vapor Pressure	No data available	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Auto-ignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization not indicated

Conditions to avoid

- Avoid generating dust.

Incompatible materials

- Oxidizing materials.

Hazardous decomposition products

- None known.

Section 11: Toxicological Information

Information on toxicological effects

		Components
Quartz (0.9%)	14808-60-7	<p>Acute toxicity: Inhalation-Human TCLO – 16 mppcf 8 Hour(s) 17.9 Year(s)-Intermittent; Lungs, Thorax, or Respiration: Fibrosis, focal (pneumoconiosis); Lungs, Thorax, or Respiration; Cough; Lungs, Thorax, or Respiration: Dyspnea; Inhalation-Rat TCLO – 200 mg/kg; Lungs, Thorax, or Respiration: Fibrosis, focal (pneumoconiosis); Lungs, Thorax, or Respiration: Other Changes; Nutritional and Gross Metabolic; Changes in Chemistry or Temperature: Fe; Multi-dose Toxicity; Inhalation-Hamster TCLO – 3 mg/m³ 6 hour(s) 78 week(s)-Intermittent; Lungs, Thorax, or Respiration: Fibrosis (interstitial); Lungs, Thorax, or Respiration: Changes in lung weight; Inhalation-Rat TCLO – 6.2 mg/m³ 6 hour(s) 6 week(s)-Intermittent; Lungs, Thorax, or Respiration: Other changes; Blood: Changes in spleen; Immunological Including Allergic: Decrease in cellular immune response;</p> <p>Mutagen; Micronucleus test – Unreported Route-Hamster – Lung (Somatic cell) – 160 µg/cm³; DNA damage – Unreported Route-Human – Other Cell Type – 120 mg/L 24 Hour(s); Micronucleus test – Unreported Route-Human – Lung (Somatic cell) – 40 µg/cm³;</p> <p>Tumorigen / Carcinogen: Inhalation-Rat TCLO – 50 mg/m³ 6 Hour(s) 71 Week(s)-Intermittent; Tumorigenic: Carcinogenic by RTECS criteria; Liver; Tumors</p>

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 – Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 – Classification criteria not met
Carcinogenicity	OSHA HCS 2012 – Carcinogenicity 1A
Germ Cell Mutagenicity	OSHA HCS 2012 – Classification criteria not met
Skin corrosion/irritation	OSHA HCS 2012 – Classification criteria not met
Skin sensitization	OSHA HCS 2012 – Classification criteria not met
STOT-RE	OSHA HCS 2012 – Classification criteria not met
STOT-SE	OSHA HCS 2012 – Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 – Classification criteria not met
Respiratory sensitization	OSHA HCS 2012 – Classification criteria not met
Serious eye damage/irritation	OSHA HCS 2012 – Classification criteria not met

Route(s) of entry/exposure - Inhalation, Skin, Eye, Ingestion
Medical Conditions Aggravated by Exposure - Disorders of the lungs

Potential Health Effects

Inhalation

- Acute (Immediate)** - Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.
- Chronic (Delayed)** - Repeated and prolonged exposure to dust may cause lung effects including pneumoconiosis, silicosis, lung cancer, and an increase chance of tuberculosis.

Skin

- Acute (Immediate)** - Exposure to dust may cause mechanical irritation.
Chronic (Delayed) - No data available.

Eye

- Acute (Immediate)** - Exposure to dust may cause mechanical irritation and corneal abrasions. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in the eyes.
Chronic (Delayed) - No data available.

Ingestion**Acute (Immediate)**

- Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (Delayed)

- No data available.

Carcinogenic Effects

- May cause cancer. IARC studies have shown sufficient evidence from animal studies to categorize crystalline silica as a group 1 carcinogen.

Carcinogenic Effects			
	CAS	IARC	NTP
Quartz	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen

Section 12: Ecological Information**Toxicity**

- Data lacking.

Persistence and degradability

- Data lacking.

Bioaccumulative potential

- Data lacking.

Mobility in Soil

- Data lacking.

Other adverse effects

- Data lacking.

Section 13: Disposal Considerations**Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14: Transport information

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

Special precautions for user

- Avoid generating dust.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- No data available.

Section 15: Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture****SARA Hazard Classifications**

- Chronic

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Iron oxide	1317-61-9	Yes	No	Yes
Quartz	14808-60-7	Yes	No	Yes

Canada

Labor Canada – WHMIS – Classification of Substances			
-	Iron oxide	1317-61-9	Uncontrolled product according to WHMIS classification criteria D2A (in certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues – Silica, crystalline, encapsulated on Health Canada’s WHMIS Division website.)
-	Quartz	14808-60-7	

Canada – WHMIS – Ingredient Disclosure List			
-	Iron oxide	1317-61-9	Not Listed
-	Quartz	14808-60-7	1%

Environment Canada – CEPA – Priority Substances List			
-	Iron oxide	1317-61-9	Not Listed
-	Quartz	14808-60-7	Not Listed

United States

Labor			
U.S. – OSHA – Process Safety Management – Highly Hazardous Chemical			
-	Iron oxide	1317-61-9	Not Listed
-	Quartz	14808-60-7	Not Listed
U.S. – OSHA – Specifically Regulated Chemical			
-	Iron oxide	1317-61-9	Not Listed
Environment			
U.S. – CAA (Clean Air Act) – 1990 Hazardous Air Pollutants			
-	Iron oxide	1317-61-9	Not Listed
-	Quartz	14808-60-7	Not Listed
U.S. – CERCLA/SARA – Hazardous Substances and their Reportable Quantities			
-	Iron oxide	1317-61-9	Not Listed
-	Quartz	14808-60-7	Not Listed

Environment (cont'd)		
U.S. – CERCLA/SARA – Radionuclides and Their Reportable Quantities		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed
U.S. – CERCLA/SARA – Section 302 Extremely Hazardous Substances EPCRA RQs		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed
U.S. – CERCLA/SARA – Section 302 Extremely Hazardous Substances TPQs		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed
U.S. – CERCLA/SARA – Section 313 – Emission Reporting		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed
U.S. – CERCLA/SARA – Section 313 – PBT Chemical Listing		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed

Other		
U.S. – Coast Guard – Bulk Solid Hazardous Materials – Special Requirements for Certain Materials		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed

United States – California

Environment		
U.S. – California – Proposition 65 – Carcinogen List		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of respirable size)
U.S. – California – Proposition 65 – Developmental Toxicity		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed
U.S. – California – Proposition 65 – Maximum Allowable Dose Levels (MADL)		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed
U.S. – California – Proposition 65 – No Significant Risk Levels (NSRL)		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed
U.S. – California – Proposition 65 – Reproductive Toxicity - Female		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed
U.S. – California – Proposition 65 – Reproductive Toxicity - Male		
- Iron oxide	1317-61-9	Not Listed
- Quartz	14808-60-7	Not Listed

Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16: Other Information

Last Revision Date

- April 25, 2017

Preparation Date

- October 28, 2014

Disclaimer Statement of Liability

- The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product. Purchasers and users of the product are responsible for determining that the product is suitable for the intended use and that their workers and the general public are advised of any risks resulting from such use. Employers should ensure that their employees, agents, contractors and customers who will use the product receive adequate training, warnings, and safe handling procedures, including a current SDS.

Key to abbreviations

NDA = No data available