

GHS Safety Data Sheet  
acc. to OSHA Hazard Communication Standard (29 CFR 1910.1200)

Section 1: Identification

- **Product identifier**
- **Trade name:** *Iron(II,III) oxide; Magnetite*
- **Product Code:** *Fe3O4M1*
- **CAS Number:** *1317-61-9*
- **EC number:** *215-277-5*
- **Application of the substance / the mixture:** *Laboratory chemicals for research and development, Pigment, Manufacturing.*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*Chemical Store Inc.  
1059 Main Avenue  
Clifton, NJ 07011  
USA*
  
- *Phone: (973) 405-6248*
- *Fax: (973) 272-1073*
- *Email: [info@chemicalstore.com](mailto:info@chemicalstore.com)*
- *[www.chemicalstore.com](http://www.chemicalstore.com)*
- **Information department:** *Technical Support Department*
- **Emergency telephone number:**  
*During normal operating hours, please call (973) 405-6248*  
*After hours, please call: (973) 420-4972*

Section 2: Hazard Identification

- **Classification of the substance or mixture**



GHS07

*Skin Irritant. 2     H315 Causes skin irritation.*  
*Eye Irritant. 2A     H319 Causes serious eye irritation.*  
*STOT SE 3     H335 May cause respiratory irritation.*

- **Label elements**
- **GHS label elements** *The substance is classified and labeled according to the Globally Harmonized System (GHS).*
- **Hazard pictograms**



GHS07

- **Signal word** *Warning*
- **Hazard-determining components of labeling:** *Iron(II,III) oxide*

· **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· **Precautionary statements**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Avoid breathing dust/fume/gas/mist/vapors/spray Wear protective gloves.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label). Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### Section 3: Composition / Information on Ingredients

· **Chemical characterization: Substances**

<b>CAS No.</b>	<b>Description</b>
1317-61-9	Iron(II,III) oxide

· **Identification number(s)**

· **EC number:** 215-277-5

### Section 4: First-Aid Measures

· **Description of first aid measures**

· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### Section 5: Fire Fighting Measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:** No special measures required.

## Section 6: Accidental Release Measures

*· Reference to other sections*

*See Section 7 for information on safe handling.*

**See Section 8 for information**

*· Reference to other sections*

*See Section 7 for information on safe handling.*

*See Section 8 for information on personal protection equipment.*

*See Section 13 for disposal information.*

## Section 7: Handling and Storage

**· Handling:**

**· Precautions for safe handling** *No special precautions are necessary if used correctly.*

**· Information about protection against explosions and fires:** *No special measures required.*

**· Conditions for safe storage, including any incompatibilities**

**· Storage:**

**· Requirements to be met by storerooms and receptacles:** *No special requirements.*

**· Information about storage in one common storage facility:** *Not required.*

**· Further information about storage conditions:** *Keep receptacle tightly sealed.*

**· Specific end use(s)** *No further relevant information available.*

## Section 8: Exposure Controls / Personal Protection

**• Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute

**• Control parameters**

**• Components with limit values that require monitoring at the workplace:** Not required.

**• Additional information:** The lists that were valid during the creation were used as basis.

**• Exposure controls**

**• Personal protective equipment:**

**• General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**• Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**• Protection of hands:** Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**• Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**• Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**• Eye protection:** Tightly sealed goggles

## Section 9: Physical and Chemical Properties

- Information on basic physical and chemical properties
- General Information
- Appearance:  
Form: Powder  
Color: Black
- Odor: Odorless
- Odor threshold: Not determined.
- pH-value at 20 °C (68 °F): 4-8
- Change in condition  
Melting point/Melting range: Boiling point/Boiling range:  
1538 °C (2800 °F)  
Undetermined
- Flash point: Not applicable.
- Flammability (solid, gaseous): Product is not flammable.
- Ignition temperature:  
Decomposition temperature: Not determined.
- Auto igniting: Not determined.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:  
Lower: Not determined.  
Upper: Not determined.
  
- Vapor pressure: Not applicable.
- Density at 20 °C (68 °F): 5.2 g/cm<sup>3</sup> (43.394 lbs/gal)
- Bulk density at 20 °C (68 °F): 600-800 kg/m<sup>3</sup>
- Relative density: Not determined.
- Vapor density: Not applicable.
- Evaporation rate: Not applicable.
- Solubility in / Miscibility with Water: Insoluble.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:  
Dynamic: Not applicable.  
Kinematic: Not applicable.
- Organic solvents: 0.0 %  
Solids content:  
• Other information: 100.0 %  
No further relevant information available.

## Section 10: Stability and Reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## Section 11: Toxicological Information

- **LD/LC50 values that are relevant for classification:**

1317-61-9 Iron(II,III) oxide

Oral LD50 >5000 mg/kg (rat)

- Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
- Carcinogenic categories

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed

## Section 12: Ecological Information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:** Not known to be hazardous to water.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

## Section 13: Disposal Considerations

- **Waste treatment methods**

- **Recommendation:**

*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

## Section 14: Transportation Information

- UN-Number
- DOT, ADN, IMDG, IATA not regulated
- UN proper shipping name
- DOT, ADN, IMDG, IATA not regulated
- Transport hazard class(es)
- DOT, ADN, IMDG, IATA
- Class not regulated
- Packing group
- DOT, IMDG, IATA not regulated

- Environmental hazards:
- Marine pollutant: No
- Special precautions for user Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
- UN "Model Regulation": -

## Section 15: Regulatory Information

### • Safety, health and environmental regulations/legislation specific for the substance or mixture

#### • Sara

- Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): Substance is listed.

#### Proposition 65

- Chemicals known to cause cancer: Substance is not listed.
- Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- Chemicals known to cause reproductive toxicity for males: Substance is not listed.

- Chemicals known to cause developmental toxicity: Substance is not listed.
- EPA (Environmental Protection Agency): Substance is not listed.
- TLV (Threshold Limit Value established by ACGIH): Substance is not listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health): Substance is not listed.
- RTECS: Substance is not listed.

.Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## Section 16: Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### • NFPA ratings (scale 0-4)

Health = 1, Fire = 0, Reactivity = 0

#### • HMIS ratings (scale 0-4)

Health = 1, Fire = 0, Reactivity = 0

#### • Department issuing SDS: Technical Support Department

#### • Contact: Technical Support Department

#### • Date of preparation / last revision 08/11/2017 / -

#### • Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical

Substances CAS: Chemical Abstracts Service (division of the American

Chemical Society) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3