



# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Reiss Viking  
Division of C. Reiss Coal Company  
P.O. Box 2219  
Wichita, KS 67201-2219  
1-316-828-7672  
kochmsds@kochind.com

**SPILL/EMERGENCY CONTACT:**  
**CHEMTREC: 1-800-424-9300**  
**To Request An MSDS: 1-316-828-7672**

**MSDS NUMBER:** 5366

**TRADE NAMES:**  
MAGNETITE \ COAL FLOAT

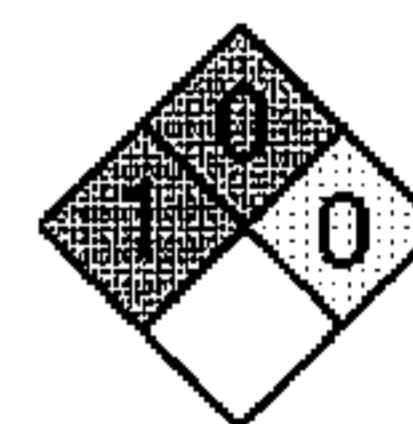
**SYNONYMS:**  
IRON OXIDE; BLACK IRON; MAGNETITE BLACK; IRON BLACK; BLACK IRON OXIDE

**CHEMICAL FAMILY:** mineral

**REVISION DATE:** Sept 21 2007

## 2. HAZARDS IDENTIFICATION

**NFPA RATINGS (SCALE 0-4):** HEALTH=1 FIRE=0 REACTIVITY=0



**EMERGENCY OVERVIEW:**

**SIGNAL WORD:** CAUTION!

**MAJOR HEALTH HAZARDS:** respiratory tract irritation, skin irritation, eye irritation, cancer hazard (in humans)

**POTENTIAL HEALTH EFFECTS:**

**INHALATION:**

**SHORT TERM EXPOSURE:** mechanical irritation, difficulty breathing, chills, fever, nausea, vomiting, diarrhea, chest pain, headache, hyperactivity

**LONG TERM EXPOSURE:** irritation, cough, difficulty breathing, fatigue, blurred vision, chills, fever, nausea, vomiting, diarrhea, chest pain, headache, lung congestion, lung damage, cancer

**SKIN CONTACT:**

**SHORT TERM EXPOSURE:** mechanical irritation, skin discoloration

**LONG TERM EXPOSURE:** irritation

**EYE CONTACT:**

**SHORT TERM EXPOSURE:** mechanical irritation, tearing, eye damage

**LONG TERM EXPOSURE:** eye damage

**INGESTION:**

**SHORT TERM EXPOSURE:** gastrointestinal irritation, stomach pain, nausea, vomiting, diarrhea, nerve damage, liver damage, blood disorders

**LONG TERM EXPOSURE:** nerve damage, liver damage, blood disorders

---

### 3. COMPOSITION, INFORMATION ON INGREDIENTS

---

**COMPONENT:** FERRIC OXIDE RED

**CAS NUMBER:** 1309-37-1

**PERCENTAGE:** <97

**COMPONENT:** FERRIC-FERROUS OXIDE

**CAS NUMBER:** 1317-61-9

**PERCENTAGE:** <97

**COMPONENT:** SILICON DIOXIDE

**CAS NUMBER:** 7631-86-9

**PERCENTAGE:** <3.5

**COMPONENT:** QUARTZ

**CAS NUMBER:** 14808-60-7

**PERCENTAGE:** <3.5

**COMPONENT:** OTHER METAL OXIDES

**CAS NUMBER:** Not assigned.

**PERCENTAGE:** 0.2-3

---

### 4. FIRST AID MEASURES

---

**INHALATION:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

**SKIN CONTACT:** Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention if irritation develops or persists. Place contaminated clothing in a closed container until laundered or discarded. Contaminated clothing should be removed and laundered before reuse. Notify person laundering clothing of contaminant's hazardous properties. Discard contaminated leather goods.

**EYE CONTACT:** Flush eyes with plenty of water for at least 15 minutes. Hold eyelids away from the eyeball to ensure thorough rinsing. Get medical attention if irritation develops or persists.

**INGESTION:** If a large amount is swallowed, get medical attention.

**NOTE TO PHYSICIAN:** Repeated or prolonged exposure to product/components may cause pneumoconiosis.

---

## 5. FIRE FIGHTING MEASURES

---

**FIRE AND EXPLOSION HAZARDS:** Negligible fire hazard.

**EXTINGUISHING MEDIA:** Use extinguishing agents appropriate for surrounding fire.

**FIRE FIGHTING:** Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

**SENSITIVITY TO MECHANICAL IMPACT:** No

**SENSITIVITY TO STATIC DISCHARGE:** No

---

## 6. ACCIDENTAL RELEASE MEASURES

---

**WATER RELEASE:**

Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.

**OCCUPATIONAL RELEASE:**

Clean up residue with a high-efficiency particulate filter vacuum. Large spills: Collect spilled material in appropriate container for disposal. Avoid generating dust.

---

## 7. HANDLING AND STORAGE

---

**STORAGE:** Store and handle in accordance with all current regulations and standards. Store outside or in a detached building. Keep separated from incompatible substances.

**HANDLING:** Avoid creation of dust. When using, do not eat, drink or smoke. Avoid contact with eyes, skin and clothing.

---

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

---

**EXPOSURE LIMITS:**

**FERRIC OXIDE RED:**

**IRON OXIDE DUST AND FUME (as Fe):**

10 mg/m<sup>3</sup> OSHA TWA

5 mg(Fe<sub>2</sub>O<sub>3</sub>)/m<sup>3</sup> ACGIH TWA (respirable fraction)

**ROUGE:**

15 mg/m<sup>3</sup> OSHA TWA (total dust)

5 mg/m<sup>3</sup> OSHA TWA (respirable fraction)

**FERRIC-FERROUS OXIDE:**

**IRON OXIDE DUST AND FUME (as Fe):**

10 mg/m<sup>3</sup> OSHA TWA

5 mg(Fe<sub>2</sub>O<sub>3</sub>)/m<sup>3</sup> ACGIH TWA (respirable fraction)

**SILICON DIOXIDE:****SILICON DIOXIDE, AMORPHOUS (SILICA, AMORPHOUS):**

20 mppcf OSHA TWA (<1% crystalline silica)

OSHA TWA (<1% crystalline silica) (80 mg/m<sup>3</sup> divided by %SiO<sub>2</sub>)

**QUARTZ:**

0.3 mg/m<sup>3</sup> OSHA TWA (total dust) (30 mg/m<sup>3</sup> divided by %SiO<sub>2</sub> + 2, based on size/aerodynamic characteristics)

0.1 mg/m<sup>3</sup> OSHA TWA (respirable dust) (10 mg/m<sup>3</sup> divided by %SiO<sub>2</sub> + 2, based on size/aerodynamic characteristics)

2.38 mppcf OSHA TWA (respirable dust) (250 mppcf divided by %SiO<sub>2</sub> in airborne sample + 5)

0.025 mg/m<sup>3</sup> ACGIH TWA (respirable fraction)

**VENTILATION:** General or local exhaust ventilation and other forms of engineering controls are the preferred means for controlling exposures. If ventilation cannot reduce airborne concentrations below acceptable limits, appropriate respiratory protection should be used.

**EYE PROTECTION:** Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**CLOTHING:** Wear appropriate chemical resistant clothing.

**GLOVES:** Wear appropriate chemical resistant gloves.

**RESPIRATOR:** A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits. Appropriate respirator selection should be made by a qualified professional as part of a comprehensive respiratory protection program as described in 29 CFR 1910.134. Protection provided by air-purifying respirators is limited and should not be used in atmospheres deficient in oxygen or where airborne concentrations are immediately dangerous to life or health. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

---

**PHYSICAL STATE:** solid

**COLOR:** gray to black

**PHYSICAL FORM:** powder

**ODOR:** odorless

**MOLECULAR WEIGHT:** 160

**MOLECULAR FORMULA:** Fe<sub>3</sub>O<sub>4</sub>

**BOILING POINT:** Not applicable

**MELTING POINT:** 2851 F (1566 C)

**VAPOR PRESSURE:** Not applicable

**VAPOR DENSITY:** Not applicable

**SPECIFIC GRAVITY (water=1):** 5.1

**WATER SOLUBILITY:** insoluble

**PH:** Not applicable

**VOLATILITY:** negligible

**ODOR THRESHOLD:** Not available  
**EVAPORATION RATE:** Not applicable  
**COEFFICIENT OF WATER/OIL DISTRIBUTION:** Not available

---

## 10. STABILITY AND REACTIVITY

---

**REACTIVITY:** Stable at normal temperatures and pressure.

**CONDITIONS TO AVOID:** Avoid generating dust.

**INCOMPATIBILITIES:** oxidizing materials

**HAZARDOUS DECOMPOSITION:**

Thermal decomposition products: miscellaneous decomposition products

**POLYMERIZATION:** Will not polymerize.

---

## 11. TOXICOLOGICAL INFORMATION

---

**MAGNETITE \ COAL FLOAT:**

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** skin disorders, respiratory disorders

**FERRIC OXIDE RED:**

**CARCINOGEN STATUS:** IARC: Human Inadequate Evidence, Animal Evidence Suggesting Lack of Carcinogenicity, Group 3; ACGIH: A4 -Not Classifiable as a Human Carcinogen

**TUMORIGENIC DATA:** Available.

**FERRIC-FERROUS OXIDE:**

**TOXICITY DATA:** >10 gm/kg oral-rat LD50

**SILICON DIOXIDE:**

**CARCINOGEN STATUS:** IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3 (Amorphous silica)

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** respiratory disorders

**QUARTZ:**

**CARCINOGEN STATUS:** NTP: Known Human Carcinogen; IARC: Human Sufficient Evidence, Animal Sufficient Evidence, Group 1; ACGIH: A2 -Suspected Human Carcinogen

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** respiratory disorders

**TUMORIGENIC DATA:** Available.

**MUTAGENIC DATA:** Available.

**ADDITIONAL DATA:** Smoking may enhance the toxic effects.

---

## 12. ECOLOGICAL INFORMATION

---

Not available

---

### 13. DISPOSAL CONSIDERATIONS

---

This product, as supplied, when discarded or disposed of, is not a hazardous waste according to 40 CFR 261. Dispose in accordance with all applicable regulations.

---

### 14. TRANSPORT INFORMATION

---

**U.S. DEPARTMENT OF TRANSPORTATION:** No classification assigned.

**CANADIAN TRANSPORTATION OF DANGEROUS GOODS:** No classification assigned.

---

### 15. REGULATORY INFORMATION

---

**U.S. REGULATIONS:**

**CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):** Not regulated.

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):**  
Not regulated.

**SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):**  
Not regulated.

**SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):**

ACUTE: No

CHRONIC: Yes

FIRE: No

REACTIVE: No

SUDDEN RELEASE: No

**SARA TITLE III SECTION 313 (40 CFR 372.65):** Not regulated.

**OSHA PROCESS SAFETY (29CFR1910.119):** Not regulated.

**CLEAN AIR ACT:** This product does not contain any component listed as a hazardous air pollutant under Title III of the Clean Air Act Amendment of 1990.

**STATE REGULATIONS:**

**California Proposition 65:**

Known to the state of California to cause the following:

**Silica, crystalline (airborne particles of respirable size)**

Cancer (Oct 01, 1988)

**NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW:** This MSDS was prepared in accordance with the New Jersey Worker and Community Right-to-Know Act.

**PENNSYLVANIA RIGHT TO KNOW:** This MSDS was prepared in accordance with the Pennsylvania Worker and Community Right-to-Know Act.

**CANADIAN REGULATIONS:**

**WHMIS CLASSIFICATION:** Not determined.

**NATIONAL INVENTORY STATUS:**

**U.S. INVENTORY (TSCA):** All the components of this substance are listed on or are exempt from the inventory.

**TSCA 12(b) EXPORT NOTIFICATION:** Not listed.

**CANADA INVENTORY (DSL/NDSL):** Not determined.

---

**16. OTHER INFORMATION**

---

**MSDS SUMMARY OF CHANGES**

2. HAZARDS IDENTIFICATION

3. COMPOSITION, INFORMATION ON INGREDIENTS

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

**NOTICE:** The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, MSDS 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.