

# MATERIAL SAFETY DATA SHEET

## Section 1: Product/Company Information

**Identity:** Ferrous Oxide, Hematite, Magnetite, Fe<sub>2</sub>O<sub>3</sub>, Fe<sub>3</sub>O<sub>4</sub>

**Mfg. Name:**   
POWDER TECHNOLOGY INC.  
14331 Ewing Avenue S.  
Burnsville, MN 55306

Emergency Number: (952) 894-8737  
Number for Info: (952) 894-8737  
Date Updated: 13 October 2005

## Section 2: Emergency and First Aid

- Eyes:** Immediately flush eye with water for at least 15 minutes. Get medical aid.
- Skin:** Immediately flush skin with water for at least 15 minutes. Remove contaminated clothing. Get medical aid if irritation develops or persists. Wash clothes before reuse.
- Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration. Seek medical help if coughing and other symptoms do not subside.
- Ingestion:** Do not induce vomiting. If conscious, have the victim drink 2-4 cups of milk or water. Get medical aid.

## Section 3: Composition Information

### Typical chemical composition:

| CAS#      | Chemical Name                             | Percent |
|-----------|---|---------|
| 1309-37-1 | Hematite, Fe <sub>2</sub> O <sub>3</sub>  | 99.4    |
| 1317-61-9 | Magnetite, Fe <sub>3</sub> O <sub>4</sub> | 99.4    |

## Section 4: Hazardous Ingredients/Identity Information

| Chemical Name    | ACGIH  | NIOSH  | OSHA - Final PELs        |
|------------------|--|--|--------------------------|
| Iron (III) Oxide | 5 mg/m <sup>3</sup> TWA (dust and fume, as Fe) | 5 mg/m <sup>3</sup> TWA (dust and fume, as Fe) | 10 mg/m <sup>3</sup> TWA |

**H.M.I.S. ratings:** Health – 0      Flammability – 1      Reactivity - 1

### Section 5: Hazard Identification

|                     |   |
|---------------------|---|
| <b>Skin:</b>        | Dust may cause mechanical irritation.   |
| <b>Eye Contact:</b> | Dust may cause mechanical irritation.   |
| <b>Inhalation:</b>  | Dust is irritating to the respiratory tract. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. |
| <b>Ingestion:</b>   | May cause severe and permanent damage to the digestive tract. May cause liver damage. Causes severe pain, nausea, vomiting, diarrhea and shock. May cause hemorrhaging of the digestive tract.  |

Note: The toxicological properties of this substance have not been fully investigated.

### Section 6: Accidental Release Measures

Use clean-up methods that do not disperse dust into the air. Use exposure control and personal protection methods as described in Section 12.

### Section 7: Physical/Chemical Data

|   |  |
|---|--|
| <b>Melting Point:</b>                           | 2849° F                                      |
| <b>Specific Gravity (H<sub>2</sub>O = 1.0):</b> | 5.24   |
| <b>Vapor Pressure:</b>                          | 1 mm Hg @ 20° C                              |
| <b>Vapor Density:</b>                           | Not applicable                               |
| <b>Solubility in Water:</b>                     | Insoluble                                    |
| <b>Appearance:</b>                              | Hematite: red-brown, Magnetite: Bluish-black |
| <b>Odor:</b>                                    | No Odor                                      |
| <b>Physical State:</b>                          | Solid  |

### Section 8: Fire and Explosion Hazard Data

**General Information:** Wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH approved and full protective gear. Irritating and highly toxic gases may be generated by thermal decomposition or combustion. Non-combustible, substance does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

**Extinguishing Media:** Substance is non-combustible; use appropriate agent for surrounding fire.

### Section 9: Stability and Reactivity Data

|  |   |
|--|---|
| <b>Stability:</b>                            | Product is stable.  |
| <b>Incompatibility (Materials to Avoid):</b> | Aluminum, bromine pentafluoride, calcium hypochlorite, carbon dioxide, cesium carbide, ethylene oxide, hydrazine, performic acid. |
| <b>Hazardous Decomposition:</b>              | Irritating and toxic fumes.   |
| <b>Hazardous Polymerization:</b>             | Will not occur.   |

### Section 10: Handling and Storage

Store in a cool, dry area. Do not store at temperatures above 140° F. Use adequate ventilation and dust collection. Use exposure control and personal protection methods as described in Section 12.

### Section 11: Toxicological Information

**Carcinogenicity:** Not listed by ACGIH, IARC, NTP or CA Prop 65.

### Section 12: Exposure Control/Personal Protection

|                                |   |
|--------------------------------|---|
| <b>Respiratory Protection:</b> | Use local exhaust or general dilution ventilation to control dust levels below applicable exposure limits. Minimize dispersal of dust into the air.   |
| <b>Eye Protection:</b>         | Wear safety glasses with side shields or goggles to avoid contact with the eyes. In extremely dusty environments and unpredictable environments, wear tight-fitting unvented or indirectly vented goggles to avoid eye irritation or injury |

### Section 13: Disposal Considerations

All disposal methods must be in accordance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterization and compliance with applicable laws are the responsibility solely of the waste generator.

### Section 14: Transportation Data

Hematite and Magnetite are not regulated under U.S. DOT regulations.

## Section 15: Other Regulatory Information

### US FEDERAL

#### TSCA

CAS# 1309-37-1 is listed on the TSCA inventory.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 1309-37-1: chronic.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 1309-37-1 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

Not available.

#### WGK (Water Danger/Protection)

CAS# 1309-37-1: 0

#### Canada - DSL/NDSL

CAS# 1309-37-1 is listed on Canada's DSL List.

#### Canada - WHMIS

WHMIS: Not available.

#### Canadian Ingredient Disclosure List

CAS# 1309-37-1 is listed on the Canadian Ingredient Disclosure List.

## Section 16: Other Information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. It is the user's obligation to determine the conditions of safe use of this product.