Section I:  Product Information

Identity:  IRON PYRITE
Synonyms:  IRON DISULFIDE; FOOL’S GOLD, PYRITE, FERROUS SULFIDE,

Trade Names:  PYRITEMAX
Revision Date:  02/2014

Section II:  Composition

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Pyrite (FeS2)</td>
<td>1309-36-0</td>
<td>100</td>
</tr>
</tbody>
</table>

Section III: Health Hazard Data

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>% By Wt</th>
<th>OSHA PEL (mg/m³)</th>
<th>OSHA Ceiling</th>
<th>ACGIH TLV</th>
<th>ACGIH STEL</th>
<th>Listed Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Pyrite</td>
<td>1309-36-0</td>
<td>100</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>NTP IARC OSHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N N N</td>
</tr>
</tbody>
</table>

*IARC Group: Not classifiable as carcinogenic to humans

Emergency Overview:  Not a fire or spill hazard. Low toxicity- Dry dust is a nuisance particulate. Generally, health effects are provided for exposure to dust that may be generated during product transfer and handling.
Primary Route of Exposure: Inhalation

Relevant Routes of Exposure:
- **EYE CONTACT:** Particulate may cause slight to moderate irritation. Abrasive action of dust particulate can damage eye.
- **SKIN CONTACT:** Prolonged or repeated contact may cause slight to moderate irritation.
- **INHALATION:** Overexposure by inhalation of airborne particulate, dust, or fumes is irritating to the nose, throat, and respiratory tract. Inhalation of excessive levels of dust or fumes may be harmful.
- **INGESTION:** Unlikely route of exposure; no hazard in normal industrial use. Small amounts (< tablespoonful) swallowed during normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. If ingested in sufficient quantity, may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting, abdominal pain, and diarrhea.

Acute and Chronic Effects of Exposure:
- Excessive, short-term exposure to airborne mineral dusts and particulate may cause upper respiratory and eye irritation.
- Excessive, long-term inhalation of airborne mineral dusts and particulate may contribute to the development of bronchitis, reduced breathing capacity, and may lead to the increased susceptibility to lung disease. Long term exposure to high concentrations of dust and fume containing iron compounds is known to produce a condition known as siderosis. On X-rays, it appears to be a benign pneumoconiosis and is not associated with pulmonary fibrosis or disability unless there is concurrent exposure to other fibrosis producing materials such as silica. Chronic ingestion of excess levels of iron can result in pathological deposition of iron in the body tissues, the symptoms of which are fibrosis of the pancreas, diabetes, mellitus, and liver cirrhosis.

Signs and Symptoms of Exposure:
(Dust) tearing of eyes, burning sensation in the throat, cough, and chest discomfort.

Aggravation of Pre-existing Conditions:
The excessive inhalation of mineral dust above PELs may aggravate pre-existing chronic lung conditions such as, but not limited to, bronchitis, emphysema, and asthma.

Reproductive Hazards:
Not a reproductive hazard.

Section IV: First Aid

Emergency and First Aid Procedures:
- **EYE CONTACT:** Flush eyes immediately with water for at least 15 minutes. Seek medical attention if irritation persists.
- **SKIN CONTACT:** Immediately wash affected area with mild soap and water to remove any dust adhering to the skin. Seek medical attention if irritation develops or persists.
- **INHALATION:** If exposed to excessive levels of dust or fumes, remove to fresh air and seek medical attention if cough or other symptoms develop. If not breathing, give artificial respiration or give oxygen by trained personnel, and get medical attention.
- **IF INGESTED:** Unlikely route of exposure. If ingested in sufficient quantity and victim is conscious, give 1-2 glasses of water or milk. Never give anything by mouth to an unconscious person. Leave decision to induce vomiting to qualified medical personnel, since particles may be aspirated into the lungs. Seek immediate medical attention.

Section V: Fire and Explosion Hazard Data

Emergency Overview:
Not a fire or spill hazard. Low toxicity; dry dust is a nuisance particulate. Generally, health effects are provided for exposure to dust that may be generated during product transfer and handling.

Flammable Properties:
This material may ignite combustible materials in the presence of high temperatures.

Extinguishing Media:
Exposure of material to water may liberate some sulfur dioxide (SO2) gas, but will not create an explosive reaction. Best to use dry chemical, CO2 or sand. Use extinguishing media appropriate to combustibles in the surrounding area.

Protection for Firefighters:
Wet material should be kept out of eyes and off skin. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Section VI: Accidental Release

Containment: Product is a dry solid (granular or powder) and not readily soluble in water. However, prevent spilled product from entering streams, water bodies, and wastewater systems.

Cleanup: Vacuum or sweep up dry material and place in a container for reuse. Avoid creating excessive airborne dust. It is recommended that cleanup personnel wear approved respiratory protection, gloves, long sleeved clothing and goggles to prevent irritation from contact and inhalation.

Collection: If possible, collect and reuse spilled product.

Evacuation: Isolate hazard area. Keep unnecessary and unprotected personnel from entering area.

Potential Environmental Effects: Derived from natural ores; no adverse environmental effects known. However, prevent spilled product from entering streams, water bodies, and wastewater systems.

Section VII: Precautions for Safe Handling and Use

Handling: Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with skin and eyes.

Storage: Store in cool, dry area. Keep container closed when not in use.

Waste Disposal: If possible, collect and reuse spilled product. Disposal Method: Follow all applicable Federal, State, and local laws, rules, and regulations regarding the proper disposal of this material.

Section VIII: Control Measures/ PPE Requirements

Engineering Controls: Minimize dust generation and accumulation. Avoid breathing dust. Keep exposure below the exposure limits listed in Section III.

Personal Protective Equipment: 

Eye Protection: Very irritating to eyes. Wear protective safety goggles when dust generation is likely.

Skin Protection: Wear clothing sufficient to cover the skin, safety shoes, and leather gloves for hand protection against dry material.

Respiratory Protection: Use NIOSH/MSHA approved respiratory protection (air purifying or air supplying) when concentrations are above exposure limit value. A respiratory protection program that meets OSHA 29 CFR part 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator. Use of multi-gas cartridge filter is recommended when hot work is performed in and around material.

Good Hygienic Practice: Wash thoroughly after using product. Wash contaminated clothing. Wash hands before eating or drinking.
Section IX: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk density</td>
<td>170 lbs/ft³</td>
</tr>
<tr>
<td>Freeze Point</td>
<td>Solid at STP</td>
</tr>
<tr>
<td>% volatile by vol</td>
<td>0% H₂O</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Slight</td>
</tr>
<tr>
<td>Melting Point</td>
<td>840 °F</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>4-6</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>6500 °F</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Appearance and Odor: A yellowish-green to gray crushed material. Slight odor of SO₂

Section X: Stability/ Reactivity Data

Stability: Stable under normal conditions of storage.
Conditions to Avoid: None under normal conditions. This material may ignite combustible materials in the presence of high temperatures.
Incompatibility (materials to avoid): Acids and readily combustible materials.
Hazardous Decomposition or Byproducts: Exposure to acid may liberate a small amount of hydrogen sulfide
Hazardous Polymerization: Will not occur.

Section XI: Toxicological Properties

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>RTECS Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Pyrite Ore</td>
<td>1309-36-0</td>
<td>LD50/LC50 Not Available</td>
</tr>
</tbody>
</table>

Section XII: Ecological Information

Material derived from mineral ores. No data available on any adverse effects of this material on the environment.

Section XIII: Disposal Considerations

RCRA: As manufactured, this product is not a RCRA listed hazardous waste and does not exhibit any characteristics of a hazardous waste, including TCLP.

Disposal Method: This product is generally suitable for landfill disposal. Follow all applicable Federal, State and local laws regarding proper disposal. If this product has been altered or contaminated with other hazardous materials, appropriate waste analysis may be necessary to determine method of disposal.

Section XIV: Transportation Information

USDOT: Not regulated

Section XV: Regulatory

RCRA: No
CERCLA: No
SARA: No
TSCA: Not Regulated
Section XVI: Other Information

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