Material Safety Data Sheet
IRON(III) OXIDE, 99.999%, -100 MESH

Section 1 - Chemical Product and Company Identification

MSDS Name: IRON(III) OXIDE, 99.999%, -100 MESH
Catalog Numbers: 19326-0000, 19326-0100, 19326-0500
Synonyms: Ferric Oxide Red

Acros Organics BVBA
Janssen Pharmaceuticaan 3a
2440 Geel, Belgium

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>%</th>
<th>EINECS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1309-37-1</td>
<td>IRON(III) OXIDE, 99.999%, -100 MESH 99.999%</td>
<td>215-168-2</td>
<td></td>
</tr>
</tbody>
</table>

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Not available

Potential Health Effects

Eye: Dust may cause mechanical irritation.
Skin: Dust may cause mechanical irritation.
Ingestion: No information found.
Inhalation: 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.
Chronic: Chronic inhalation may cause effects similar to those of acute inhalation.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

CAS# 1309-37-1:
United Kingdom, WEL - TWA: 5 mg/m3 TWA (fume, as Fe); 10 mg/m3
TWA (total inhalable, listed as rouge); 4 mg United Kingdom, WEL - STEL: 10 mg/m³ STEL (fume, as Fe); 30 mg/m³ STEL (total inhalable, listed as rouge); 1

United States OSHA: 10 mg/m³ TWA
Belgium - TWA: 2 ppm VLE (fume, as Fe); 5 mg/m³ VLE (fume, as Fe)
France - VME: 5 mg/m³ VME (as Fe)
Germany: 6 mg/m³ TWA (respirable fraction)

Malaysia: 2 ppm TWA (dust and fume, particulate matter containing no asbestos and <1% crys
Netherlands: 10 mg/m³ MAC (as Fe₂O₃)
Russia: 4 mg/m³ TWA (aerosol)
Spain: 5 mg/m³ VLA-ED (dust and fume, as Fe)

Personal Protective Equipment
- **Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- **Skin:** Wear appropriate protective gloves to prevent skin exposure.
- **Clothing:** Wear appropriate protective clothing to prevent skin exposure.
- **Respirators:** 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

Respirators: approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

- **Physical State:** Powder
- **Color:** rust
- **Odor:** Not available
- **pH:** Not available
- **Vapor Pressure:** 1 mm Hg @ 20°C
- **Viscosity:** Not available
- **Boiling Point:** Not available
- **Freezing/Melting Point:** 1538 deg C (2,800.40°F)
- **Autoignition Temperature:** Not available
- **Flash Point:** Not available
- **Explosion Limits:** Lower: Not available
- **Explosion Limits:** Upper: Not available
- **Decomposition Temperature:** Not available
Solubility in water: insoluble
Specific Gravity/Density: 5.2400g/cm3
Molecular Formula: Fe2O3
Molecular Weight: 159.69
Section 10 - Stability and Reactivity
Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid: Incompatible materials, dust generation.
Incompatibilities with Other Materials: Aluminum, carbon dioxide, ethylene oxide, hydrazine, calcium hypochlorite, bromine pentafluoride, cesium carbide.
Hazardous Decomposition Products: None.
Hazardous Polymerization: Has not been reported.
Section 11 - Toxicological Information
RTECS#: CAS# 1309-37-1: NO7400000 NO7420000 NO7480000
LD50/LC50: RTECS: Not available.
IRON(III) OXIDE, 99.999%, -100 MESH - IARC: Group 3 (not carcinogenic: classifiable)
Carcinogenicity: See actual entry in RTECS for complete information.
Other: No information available.
Section 12 - Ecological Information
Other: No information available.
Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.
Section 14 - Transport Information
IATA IMO RID/ADR
Shipping Name: Not available Not available Not available
Hazard Class: Not available
UN Number: Not available
Packing Group: Not available
Section 15 - Regulatory Information
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: Not available
Risk Phrases:
Safety Phrases:
S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)
CAS# 1309-37-1: 0

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

US Federal
TSCA
CAS# 1309-37-1 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 7/16/1996
Revision #0 Date Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.