



## Ya-Aiqab Laboratories

### Material Safety Data Sheet

#### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY UNDERTAKING:

##### 1.1 Product Identifiers

**Product name:** Iron (II, III) Oxide  
**Synonyms:** Magnetite; Black Iron Oxide; Ferrous Ferric Oxide  
**Chemical formula:** Fe<sub>3</sub>O<sub>4</sub>  
**Product #:** 14412  
**Brand:** Ya-Aiqab Laboratories  
**CAS #:** 1317-61-9

##### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses:** Laboratory chemicals, manufacture of substances

##### 1.3 Details of the supplier of the safety data sheet

Ya-Aiqab Laboratories Co.  
Barangay Curva  
Santiago, Agusan del Norte 8608  
Philippines  
Telephone: 63-905-315-6850  
Emergency number (Philippines): 63-947-417-6226  
Emergency number (U.S.): 1-347-638-6247

#### 2. COMPOSITION / INFORMATION ON INGREDIENT(S) :

##### 2.1 Chemical formula

Fe<sub>3</sub>O<sub>4</sub>

##### 2.2 Molecular weight

231.53 g/mol

##### 2.3 Component

Iron (II) diiron (III) oxide

#### 3. HAZARDS IDENTIFICATION :

This substance is not classified as hazardous or dangerous substance.

#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures

**General Advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water.

**In case of eye contact:** Rinse thoroughly with water for at least 15 minutes and consult a physician.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### 5. ACCIDENTAL RELEASE MEASURES :

##### 5.1 Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

##### 5.2 Environmental precautions

Do not let product enter drains.

##### 5.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

#### 6. HANDLING AND STORAGE :

##### 6.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

##### 6.2 Conditions for safe storage

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

#### 7. EXPOSURE CONTROL / PERSONAL PROTECTION :

##### 7.1 Exposure controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands during breaks and at the end of work day.

##### 7.2 Personal protective equipment

###### Eye and face protection

Safety glasses with side-shields conforming to NIOSH (US) or EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

###### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### **Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## **8. PHYSICAL AND CHEMICAL PROPERTIES**

### **8.1 Information on basic physical and chemical properties**

- a) Appearance / Form: black powder
- b) Odor: no data available
- c) pH no data available
- d) Freezing point: no data available
- e) Melting point: 2,907°F (1,538°C), decomposes
- f) Boiling point: >3,632°F (>2,000°C)
- g) Flash point: not applicable
- h) Evaporation rate: no data available
- i) Flammability (solid, gas): no data available
- j) Upper/lower flammability or explosive limits: no data available
- k) Vapor pressure: no data available
- l) Vapor density: no data available
- m) Relative density: 5.17 g/cm<sup>3</sup>
- n) Water solubility: insoluble
- o) Auto-ignition temperature: no data available
- p) Decomposition temperature: no data available
- r) Viscosity: no data available

## **9. STABILITY AND REACTIVITY**

### **9.1 Reactivity**

no data available

### **9.2 Chemical stability**

no data available

### **9.3 Possibility of hazardous reactions**

Fuses generating high temperatures when mixed and ignited with aluminum powder, zinc powder, or other reactive metals.

### **9.4 Conditions to avoid**

no data available

### **9.5 Incompatible materials**

Chloroformates, Peroxides, Strong acids

### **9.6 Hazardous decomposition products**

Other decomposition products - no data available

## **10. DISPOSAL CONSIDERATIONS**

### **10.1 Waste treatment methods**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

## **11. TRANSPORT INFORMATION**

### **11.1 UN number**

ADR/RID: - IMDG: - IATA: -

### **11.2 UN proper shipping name**

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### **11.3 Transport hazard class(es)**

ADR/RID: - IMDG: - IATA: -

### **11.4 Packaging group**

ADR/RID: - IMDG: - IATA: -

### **11.5 Environmental hazards**

ADR/RID: no IMDG Marine pollutant: no IATA: no

### **11.6 Special precautions for user**

no data available

## **12. OTHER INFORMATION**

For further information please contact [Y.L.Products@ushalogens.com](mailto:Y.L.Products@ushalogens.com)

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Ya-Aiqab Laboratories Co. and its Affiliate U.S. Halogens, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.ushalogens.com](http://www.ushalogens.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.