



# Safety Data Sheet

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Fast Acting Iron<sup>II</sup>**  
 Formula: Iron Oxide Black + Sulfur + Calcium Sulfate Dihydrate + Lignosulfonate+ Anionic Polyacrylamide  
 CAS No.: N/A  
 Recommended Use: Fertilizer; Soil Amendment

Company Identification: **Encap, LLC**  
 3921 Algoma Road  
 Green Bay, WI 54311  
 Phone: (877) 405-5050

## 2. HAZARDS IDENTIFICATION

### HMIS Classification

Health Hazard:	1	HEALTH	1
Chronic Health Hazard:	-	FIRE	0
Flammability:	0	REACTIVITY	0
Physical Hazards:	0	PPE	E
Personal Protection:	E		

(Safety glasses, gloves, and dust respirator)

### NFPA Rating

Health Hazard: 1  
 Fire: 0  
 Reactivity Hazard: 0  
 Special Hazard: None



### GHS Labeling

Symbol: Exclamation mark  
 Signal Word: Warning



### Hazard Statements:

H315 Causes skin irritation  
 H320 Causes eye irritation  
 H335 May cause respiratory irritation  
 H303 May be harmful if swallowed

**Precautionary Statements:** P 261 Avoid breathing dust

**Hazards Not Otherwise Classified:** Unknown

### OSHA Hazards

No known OSHA hazards

### Target Organs

Skin, eyes, and respiratory system.

### Potential Immediate Health Effects

Inhalation: May cause respiratory tract irritation. Coughing, sneezing, or shortness of breath may occur following exposures in excess of exposure limits.  
 Skin: May cause skin irritation.  
 Eyes: May cause eye irritation.  
 Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation. Intestinal obstruction may occur if the material hardens.

# Encap, LLC Fast Acting Iron<sup>II</sup> SDS

## 3. COMPOSITION

Chemical Identity: CaSO <sub>4</sub> ·2H <sub>2</sub> O Common Name: Gypsum CAS No.: 10101-41-4	51.7%
Chemical Identity: Sulfur Common Name: Sulfur CAS No.: 7704-34-9	27.1%
Chemical Identity: Bentonite Clay Common Name: Bentonite Clay CAS No.: 1302-78-9	10.4%
Chemical Identity: Iron Compounds Common Name: Iron Oxide Black CAS No.: 1309-38-2	9.0%
Chemical Identity: Lignosulfonate Common Name: Lignosulfonate CAS No.: 8061-52-7	1%
Chemical Identity: Anionic Polyacrylamide Common Name: Anionic Polyacrylamide CAS No.: 9003-05-8	0.9%

## 4. FIRST AID MEASURES

### EYE:

Symptoms: May cause eye irritation.

Irrigate immediately. If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention if needed.

### SKIN:

Symptoms: May cause skin irritation.

Wash skin immediately rinse skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if needed.

### INHALATION:

Symptoms: May cause respiratory tract irritation. Coughing, sneezing, or shortness of breath may occur following exposures in excess of exposure limits.

Fresh air. If a person breathes in large amounts of this product, move to fresh air at once. If not breathing, give artificial respiration. Get medical attention if needed.

### INGESTION:

Symptoms: May be harmful if swallowed. May cause gastrointestinal tract irritation. Intestinal obstruction may occur if the material hardens.

Rinse mouth. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if needed.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

A fine water spray, fog, CO<sub>2</sub> or dry chemical.

### Unsuitable Extinguishing Media

Hoses and extinguishers with pressure streams should be avoided where solid sulfur is dusty or where it may create a further hazard by raising more dust clouds.

### Special Protective Equipment for Fire-Fighters

Self-contained breathing apparatus and full protective clothing. Masks approved for use in acid-gas atmosphere should be used.

Note: Aqueous solutions or powders may render surfaces slippery.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions

Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation.

### Environmental Precautions

Prevent product from entering drains.

### Methods and Materials for Containment and Clean-up

Sweep spilled substance into containers; avoid generating dust. Reuse if not contaminated.

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## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Eating, drinking, and smoking should be prohibited in areas where this material is handled or stored. Do not ingest and avoid contact with skin and eyes. Avoid breathing in dust. Wear appropriate respirator when ventilation is inadequate.

### Recommended Conditions for Storage

Store in a cool, dry, well ventilated location. Do not store near aluminum (at high temperatures), diazomethane, oxidizing agents or other incompatible materials. Keep away from moisture.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits

	CAS No.	ACGIH TLV	OSHA/PEL
Iron Oxide Black	1309-38-2	5 mg/m <sub>3</sub>	10 mg/m <sub>3</sub> (as Fe <sub>2</sub> O <sub>3</sub> )
Sulfur	7704-34-9	none	none
Inert ingredients/filler	No CAS No.	none	none
Calcium sulfate dihydrate (gypsum)	10101-41-4	10 mg/m <sub>3</sub>	15 mg/m <sub>3</sub> (total)
Anionic Polyacrylamide	9003-05-8	none	none
Lignosulfonate	8061-52-7	none	none

### Engineering Controls

Local exhaust ventilation recommended. Running water should be available in case material gets in eyes. Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Handling equipment must be grounded or bonded to avoid static electricity. Wash clothing before reusing. Sulfur impregnated clothing should not be worn.

### Personal Protective Equipment

#### Respiratory Protection

A NIOSH (US) or CEN (EU) approved particulate respirator is recommended where total dust concentration exceeds 10 mg/m<sup>3</sup>. Avoid breathing dust.

#### Hand Protection

Rubber, neoprene, vinyl, or nitrile gloves.

#### Skin and Body Protection

Long sleeves or lab coat and long pants are recommended.

#### Eye Protection

NIOSH (US) or CEN (EU) approved safety glasses with side shields, goggles, or face shield are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown and black granular and pellet mix  
Odor: Mineral  
Odor threshold: Unknown  
pH: Neutral  
Melting Point: Approximately 246° F  
Freezing Point: Unknown  
Evaporation Rate: 0  
Flammability: Not Flammable  
Explosion Limits: Unknown  
Vapor Pressure: N/A  
Vapor Density: N/A  
Specific Gravity: 2.6 - 2.75  
Solubility in Water: Insoluble  
Partition coefficient: Unknown  
Auto-ignition temp.: Unknown  
Decomposition temp.: Unknown  
Viscosity: N/A  
Other: Unknown

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable under recommended storage conditions. Avoid excess sources of ignition, heat, and incompatible materials. Dust suspended in air is readily ignited.

**Conditions to Avoid:** Oxidizing agents, aluminum (at high temperatures), diazomethane, heat, sparks, open flame, static electricity, or any other potential ignition source.

**Hazardous Decomposition Products:**

Thermal decomposition may produce: sulfur dioxide, calcium oxide, nitrogen oxides, carbon oxides, sulfur oxides, and hydrogen cyanide.

**11. TOXICOLOGICAL INFORMATION**

**Likely Routes of Exposure**

Eyes, skin, ingestion, and inhalation.

**Potential Health Effects**

**Inhalation:** May cause respiratory tract irritation. Coughing, sneezing, or shortness of breath may occur following exposures in excess of exposure limits.

**Ingestion:** May be harmful if swallowed. May cause gastrointestinal tract irritation. Intestinal obstruction may occur if the material hardens.

**Skin:** May cause skin irritation.

**Eyes:** May cause eye irritation.

**Acute Toxicity**

No data available.

**Reproductive Toxicity**

No data available.

**Germ Cell Mutagenicity**

No data available.

**Specific target organ toxicity - single exposure**

Adverse health effects are not expected under normal use.

**Specific target organ toxicity - repeated exposure**

No data available.

**Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

IARC = International Agency for Research on Cancer

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by ACGIH.

ACGIH = American Conference of Industrial Hygienists

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated carcinogen by NTP.

NTP = National Toxicology Program

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by OSHA.

OSHA = Occupational Safety and Health Administration

**12. ECOLOGICAL INFORMATION**

**Toxicity**

Not applicable

**Mobility**

Water contaminating.

**Persistence and Degradability**

No data available.

**PBT and vPvB Assessment**

Not applicable.

**Bioaccumulative Potential**

Not applicable.

**Other Adverse Effects**

No data available.

**13. DISPOSAL CONSIDERATIONS**

May be disposed of as an inert solid in sanitary landfill or by other procedures in accordance with all federal, state and local regulations.

**14. TRANSPORT INFORMATION**

**DOT (US)**

This material is not regulated by the DOT.

**IMDG**

This material is not regulated by the IMDG.

**IATA**

This material is not regulated by IATA.

**15. REGULATORY INFORMATION**

**OSHA Hazards**

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

**DSL Status**

Iron oxide black and sulfur are on the Canadian Domestic Substance List (DSL) list.

**SARA 302 Compounds**

No chemicals in this material are subject to SARA Title III, Section 302 reporting.

**SARA 313 Compounds**

No chemicals in this material are subject to the reporting requirements of Section 313 of SARA.

**SARA 311/312 Hazards**

No chemicals in this material are subject to Section 311/312 of SARA.

**Massachusetts Right To Know**

Gypsum and sulfur are listed by the Massachusetts Right to Know Act.

**Pennsylvania Right To Know**

Gypsum and sulfur are listed by the Pennsylvania Right to Know Act.

**New Jersey Right To Know**

Gypsum and sulfur are listed by the New Jersey Right to Know Act.

**California Proposition 65**

This product contains a known to the State of California to cause cancer: Residual Acrylamide.

**16. OTHER INFORMATION**

No data is available, per 29 CFR 1910.1200(d)(b); health hazards are based upon all of the components which make up the mixture.

The above information is believed to be correct, but is not purported to be all-inclusive and should only be used as a guide. Because data, safety standards, and regulatory inputs are subject to change, no warranty, guarantee, or representation with respect to the completeness or continuing accuracy of the information contained in this document is made. The user of this product must decide what safety measures are necessary to safely use this product; the conditions of handling and use, or misuse, are beyond the control of Encap, LLC. The user is also responsible to determine its environmental regulatory compliance obligations under any applicable federal or state laws.