



# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Iron (II) sulfate heptahydrate**

PRODUCT NUMBER: 2087

CAS NUMBER: 7782-63-0

SYNONYMS: Ferrous sulfate heptahydrate

### MANUFACTURER:

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## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Warning**

### Hazard Statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

### Precautionary Phrases

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P362	Take off contaminated clothing and wash before reuse.

### HMIS CLASSIFICATION:

Health: 1      Fire: 0      Reactivity Hazard: 0

### NFPA RATING:

Health: 1      Flammability: 0      Reactivity Hazard: 0

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

**EYE CONTACT:** Causes serious eye irritation.

**SKIN CONTACT:** Causes skin irritation

**INHALATION:** May be harmful if inhaled. Causes respiratory tract irritation.

**INGESTION:** Harmful if swallowed.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula:  $\text{FeO}_4\text{S} \cdot 7\text{H}_2\text{O}$

Molecular Weight: 278.01

CHEMICAL NAME	CAS#	%
Iron (II) sulfate heptahydrate	7782-63-0	100

## SECTION 4 FIRST AID MEASURES

**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

**SKIN EXPOSURE:** Wash affected area with plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

**INGESTION:** Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Product is not flammable

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Use fire fighting measures that suit the surrounding fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** Sulfur oxides and iron oxides

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

**ENVIRONMENTAL PRECAUTIONS:** Prevent spillage from entering drains or allowing to be released into the environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Sweep up and place in suitable container for proper disposal.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols. Handle under dry protective gas. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Hygroscopic. Store under dry inert gas. Storage class: Non-combustible solids. Store away from oxidizing agents and air.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Iron (II) Sulfate Heptahydrate	1 mg/m <sup>3</sup>	TLV	ACGIH
	1 mg/m <sup>3</sup>	PEL	OSHA
	1 mg/m <sup>3</sup>	REL	NIOSH

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

**EYE PROTECTION:** Wear chemical safety glasses or goggles and face shield.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

**VENTILATION:** Provide local exhaust, preferably mechanical.

**RESPIRATOR:** Use an approved respirator.

**ADDITIONAL PROTECTION:** Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** Blue to blue green solid

**ODOR:** None

**MOLECULAR WEIGHT:** 278.01

**BOILING POINT:** No data available

**MELTING POINT:** 64° C

**SPECIFIC GRAVITY:** 1.898 gm/ml

**VAPOR DENSITY:** No data available

**SOLUBILITY:** Soluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Excess heat

**INCOMPATIBILITY:** Strong oxidizing agents, air, alkalis, soluble carbonates, Au and Ag salts, Pb acetate, lime water, KI, K, and Na tartrate, Na Borate, tannin, vegetable astringent infusion, and decoctions. Slightly reactive to moisture.

**DECOMPOSITION PRODUCTS:** Sulfur oxides and iron oxides

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LD50 Oral mouse – 1520mg/kg. LD50 Intraperitoneal – mouse – 245mg/kg. LD50 Intravenous – mouse – 51mg/kg. LD50 Oral – rat – 1389mg/kg.

**CARCINOGENIC EFFECTS:** No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

**MUTAGENIC EFFECTS:** May affect genetic material. Mutagenic for bacteria and/or yeast.

**TETRAOGENIC EFFECTS:** Not available

**CHRONIC TOXICITY:** May cause damage to the following organs: Kidneys, cardiovascular system, central nervous system (CNS)

**RTECS:** NO8510000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

## SECTION 12 ECOLOGICAL DATA

No data available.

## SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

## **SECTION 14 TRANSPORTATION DATA**

Not a dangerous good.

## **SECTION 15 REGULATORY INFORMATION**

**TSCA:** Not listed

**SARA 302/304:** Not Listed

**SARA 311/312:** Acute Health Hazard

**SARA (TITLE 313):** Not Listed

**CALIFORNIA PROP. 65:** Not Listed

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS:** Iron (II) sulfate heptahydrate

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** Iron (II) sulfate heptahydrate

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS:** Iron (II) sulfate heptahydrate

## **SECTION 16 OTHER INFORMATION**

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**DATE PREPARED:** 01/15

**SDS DEPT.**