

SAFETY DATA SHEET

MOMENTUM IRON

Product ID: MC213400 / 0618

Revised: 01-23-2018, SDS0618.01

Replaces: None

1. IDENTIFICATION

Product Identifier: MOMENTUM IRON
Other Identifiers: R35315
CAS Number: MIXTURE
Recommended Use: Fertilizer
Restrictions on Use: No data available.



Source to Source
3233 South I Street
Tulare, CA 93274
(866) 727-4572

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (866) 727-4572
CHEMTREC Emergency #: (800) 424-9300

2. HAZARD(S) IDENTIFICATION

GHS Classification(s): Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Acute Toxicity - Oral Category 4

GHS Label Elements:

GHS Hazard Symbols:



Signal Word: Warning

Hazard Statements: Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.

Precautionary Statements:

Prevention: Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
IF ON SKIN: Wash with plenty of water
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see First Aid on SDS or on this label).
Rinse mouth.
If skin irritation occurs: Get medical advice or attention.
If eye irritation persists: Get medical advice or attention.
Take off contaminated clothing and wash before reuse.

Disposal: Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: None known.

Percentage of Components with Unknown Acute Toxicity:

Dermal: 36 %
Inhalation Vapor: 36 %
Inhalation Dust/Mist: 40.5 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures:

<u>Chemical or Common Name/Synonyms</u>	<u>CAS Number</u>	<u>% by Wt.</u>
Ferrous Sulfate Heptahydrate	7782-63-0	< 30 %
Malic Acid	6915-15-7	< 5 %
Citric Acid	77-92-9	< 5 %

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

4. FIRST-AID MEASURES

Description of Necessary Measures:

Eye Contact: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention.

Skin Contact: If on skin: Immediately flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Wash with soap and water.

Inhalation: If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

Ingestion: If swallowed: If fully conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Most Important Symptoms/Effects, Acute and Delayed:

Eye Contact: Causes severe irritation. Effects depend on concentration and duration of exposure. May cause: redness. tearing. blurred vision. May cause eye damage.

Skin Contact: May cause moderate irritation. Contact may cause: drying. cracking. itching. redness. burning sensation. severe irritation.

Skin Absorption: No absorption hazard expected under normal use.

Inhalation: Causes moderate irritation. May irritate: respiratory tract. mucous membranes. May cause: coughing.

Ingestion: Causes severe irritation. May cause: heartburn. nausea. discomfort. constipation. diarrhea. severe hemorrhagic gastritis. abdominal pain. retching. violent diarrhea and vomiting. shock. rapid, weak pulse. no pulse. severe hypotension. pulmonary changes. dyspnea. emphysema. Symptoms of severe poisoning may occur within 30 minutes or be delayed for several hours. The average lethal dose of iron is about 200 to 250 mg per kg of body weight.

Indication of Immediate Medical Attention and Special Treatment Needed: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: For fires in area use appropriate media. For example: Dry chemical. Carbon dioxide. Foam. Water spray.

Specific Hazards Arising from the Chemical:

Fire and Explosion Hazards: Material will burn in fire, releasing toxic vapors.

Hazardous Combustion Products: Sulfur oxides. Irritating and highly toxic gases. Carbon dioxide. Carbon monoxide. Ammonia. Biuret. Nitrogen oxides. Cyanuric acid. Unidentified toxic and/or irritating compounds.

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Special Protective Equipment and Precautions for Fire-Fighters: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. Move containers from fire area if possible without hazard. Do not scatter material with high-pressure water streams.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures: Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.

Methods and Materials for Containment and Clean Up: Contain soil spill or liquid spills, and neutralize with lime or sodium carbonate if necessary. Place into suitable container for disposal. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Low temperatures may cause crystallization. Keep away from all sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
No components found.	

ACGIH Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
Ferrous Sulfate Heptahydrate	1 mg/m3 TWA (as Fe)

Note:

* Exposure Limit for Iron Salts, soluble, as Fe. + Vacated 1989 OSHA PEL(s).

Engineering Controls: General room ventilation and local exhaust are required. General room ventilation and/or local exhaust are required. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Individual Protection Measures:

Eye/Face Protection: Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant. Impervious.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If needed, wear: NIOSH-Approved respirator. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Protective clothing. Rubber apron. Chemical safety shoes.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Brown.
Odor: Mild odor.
Odor Threshold: N.D.
pH: 1.5 (as is)
Freezing Point (deg. F): N.D.
Melting Point (deg. F): N.D.
Initial Boiling Point or Boiling Range: N.A.
Flash Point: N.A.
Flash Point Method: N.A.
Evaporation Rate (nBuAc = 1): N.D.
Flammability (solid, gas): N.D.
Lower Explosion Limit: N.A.
Upper Explosion Limit: N.A.
Vapor Pressure (mm Hg): N.D.
Vapor Density (air=1): N.D.
Specific Gravity or Relative Density: 1.2200 @ 25 Deg. C
Solubility in Water: No Data
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: N.D.
% Volatile (wt%): N.D.
VOC (wt%): N.D.
VOC (lbs/gal): N.D.
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Spontaneously combustible when mixed with arsenic trioxide + sodium nitrate. May decompose explosively with methyl isocynoacetate at 25C. Tends to oxidize when heated.

Conditions to Avoid: Low temperatures may cause crystallization. Avoid elevated temperatures.

Incompatible Materials: Alkalies. Arsenic trioxide + sodium nitrate. Methyl isocynoacetate. Oxidizing agents. Bases. Alkali metals. Amines. Reducing agents. Carbonates.

Hazardous Decomposition Products: Sulfur oxides. Carbon dioxide. Carbon monoxide. Maleic acid. Maleic anhydride.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Eyes. Ingestion. Inhalation. Skin.

Symptoms/Effects: Acute, Delayed and Chronic:

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Numerical Measures of Toxicity:

<u>Component</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
Ferrous Sulfate Heptahydrate	Mouse: 1520 mg/kg	No Data	No Data
Malic Acid	Mouse: 1600 mg/kg	No Data	No Data
Citric Acid	Rat: 3000 mg/kg	Rat: > 2000 mg/kg	No Data

Acute Toxicity Estimate (ATE):

Oral: 1837 mg/kg

Cancer Information:

This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Medical Conditions Aggravated by Exposure to Product: Eye disorders. Respiratory system disorders. Skin disorders.

Other: Ingestion of concentrated solutions or powder may cause nausea, vomiting, diarrhea, and black stools. pink to red-brown discoloration of the urine is an indication of iron poisoning. Severe hemorrhagic gastritis with abdominal pain, retching, and violent diarrhea may occur. Circulatory system may be affected with symptoms of shock, rapid, weak or no pulse, and severe hypotension may occur. Smaller doses are much more toxic to children in comparison to adults. Chronic ingestion may result in adverse effects on the liver. Severe or chronic Ferrous Sulfate poisonings may damage blood vessels. Large chronic doses cause rickets in infants.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D002

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

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(CONTAINS FERROUS SULFATE)

Hazard Class: 9
Packing Group: III

15. REGULATORY INFORMATION

TSCA Inventory Status: This product or all components of this product are listed on the EPA/TSCA Inventory of Chemical Substances.

SARA Title III Section 311/312 Category Hazards: Please see Section 2 of this SDS.

Regulated Components: Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Ferrous Sulfate Heptahydrate	7782-63-0	Yes	No	No	No	Yes	No

***Prop 65 - May Contain the Following Trace Components:**

No data available.

16. OTHER INFORMATION

Hazard Rating System

Health: 2*

Flammability: 0

Reactivity: 0

* = Chronic Health Hazard

NFPA Rating System

Health: 2

Flammability: 0

Reactivity: 0

Special Hazard: None

SDS Abbreviations

N.A. = Not Applicable

N.D. = Not Determined

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

C = Ceiling Limit

N.E./Not Estab. = Not Established

SDS Prepared by: csh, rvd jct

Reason for Revision: New product.

Revised: 01-23-2018, SDS0618.01

Replaces: None

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