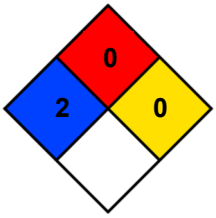
SAFETY DATA SHEET
OM Iron

Rev E 6/28/2023

HMIS	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PPE	C



SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT IDENTIFIER:	**OM Iron**	**Product# 850**
GENERAL USE:	Used as a part of a plant nutrition program.	
PRODUCT DESCRIPTION:	A slightly hazy greenish brown liquid with a characteristic odor.	

SUPPLIER INFORMATION:

Huma, Inc.
1331 W Houston Avenue
Gilbert, AZ 85233

For Additional SDS call:
480-961-1220

PHONE: (480) 961-1220

EMERGENCY PHONE NUMBERS

CHEMTREC: (In the USA) 800-424-9300
(International) 703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

HAZARDS OVERVIEW:

A slightly hazy greenish brown liquid with a characteristic odor. The liquid and mists can be irritating to the eyes and skin. Inhalation of mists may be irritating to the entire respiratory tract. This product may be toxic by ingestion or inhalation of high mist concentrations.

CLASSIFICATION: SKIN CORROSION – CATEGORY 1A
SIGNAL WORD: DANGER
HAZARD STATEMENT: H314; causes severe skin burns and eye damage
PRECAUTIONARY STATEMENT: P260; Do not breathe dusts/mist/vapors. P280; Wear protective gloves/protective clothing/eye protection/face protection P264; Wash hands thoroughly after handling

CLASSIFICATION: HAZARD CATEGORY 4
SIGNAL WORD: WARNING
HAZARD STATEMENT: H302; Harmful if Swallowed
PRECAUTIONARY STATEMENT: P301+P317—If swallowed, get emergency medical help., P330; Rinse Mouth P264; Wash hands thoroughly after handling. P270; Do not eat, drink or smoke when using this product.

SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

				ACGIH		OSHA	
COMPONENT	**CAS #**	**OSHA HAZARD**	**WT %**	**$TLV_{(TWA)}$**	**STEL**	**$PEL_{(TWA)}$**	**STEL**
Ferrous Sulfate Heptahydrate	7782-63-0	Eye Corrosive; Skin, & Respiratory Irritant; Moderately Toxic by Ingestion	23 ± 2	1 mg/m^3 (as Fe)	None	None	None
Citric Acid Anhydrous	77-92-9	Severe Eye Irritant; Moderate to Severe Skin & Respiratory Irritant	5 ± 0.5	None	None	None	None

NDA = No Data Available **N/A = Not Applicable**

SECTION 4: FIRST AID MEASURES

INHALATION: If inhaled, immediately move to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

EYE CONTACT: In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses, if worn. Get medical attention if irritation persists.

SKIN CONTACT: In case of contact, flush skin with plenty of clean running water. Remove contaminated clothing and shoes and wash before reuse. If irritation occurs and persists, get medical attention.

INGESTION: If swallowed, get medical attention immediately. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: Based on component information, this product can be moderately toxic by ingestion. If a large amount is ingested, consideration should be given to careful endoscopy as stomach or esophageal irritation may occur, with possible central nervous system effects following absorption into the blood stream. Careful gastric lavage with an endotracheal tube in place should be considered.

Treat exposure symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Flashpoint and Method: This product does not flash.

Flammable Limits (in air, % by volume) **Lower:** Not applicable **Upper:** Not applicable

Autoignition Temperature: Not applicable

GENERAL HAZARD: This product is an aqueous, acidic solution of organic and inorganic compounds. The Uniform Fire Code health hazard classification for this product is: **Irritant**. It may produce hazardous decomposition products.

FIRE FIGHTING INSTRUCTIONS: **EXTINGUISHING MEDIA:** Water, foam, CO_2 or dry chemicals.

Use a water spray or fog to cool the containers exposed to the heat of a fire.

FIRE FIGHTING EQUIPMENT: Fire fighters should wear full protective equipment, including self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: When heated to dryness and decomposition, it emits toxic carbon monoxide, carbon dioxide, iron oxide, sulfur oxides and nitrogen oxides, with trace or ultra-trace toxic oxide amounts, of zinc, copper, potassium, phosphorus, manganese, magnesium, calcium and sodium plus irritating smoke.

SECTION 6: ACCIDENTAL RELEASE MEASURES

RELEASE TO LAND: Wearing recommended protective equipment and clothing, dike the spill and pick up the bulk of liquid using pumps or a vacuum truck, or absorb the liquid in sand or a commercially absorbent material. Place in approved containers for recovery, disposal, or satellite accumulation. Neutralize the acidity, of the remaining liquid, using soda ash, lime, or other agent appropriate for neutralizing acidic liquids. Flush the spill area with water; collect the rinsates for disposal or sewer, as appropriate.

RELEASE TO WATER: Wear recommended protective equipment and clothing if contact with hazardous material can occur. Stop or divert water flow. Dike contaminated water and remove for disposal and/or treatment. As appropriate, notify all downstream users of possible contamination.

SECTION 7: HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient **STORAGE PRESSURE:** Ambient

GENERAL: Store in a cool, dry, well-ventilated, area away from incompatible materials and products. Protect eyes, skin and clothing from contact with this product. Wear recommended personal protective equipment when handling this product. Avoid breathing vapors or mists. Use with adequate ventilation. Do not take internally. Keep the container tightly closed when not in use. Wash thoroughly after handling this product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL MEASURES: Use a local or general, mechanical exhaust ventilation system capable of maintaining emissions, in the work area, below the AIHA WEEL or levels that may cause irritation.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

RESPIRATOR: Respiratory protection is not normally required. If use produces mists or aerosols that may cause irritation, a NIOSH approved half mask or full facepiece respirator equipped with a good mist / particulate cartridge or supplied air is recommended. **Note:** Always consult the respirator manufacturer's data when determining the suitability of respiratory protective devices prior to use.

EYES: Wear chemical goggles (recommended by ANSI Z87.1-1979), unless a full facepiece respirator is worn. **Note:** Always consult the protective eyewear manufacturer's data when determining the suitability of protective eyewear prior to use.

GLOVES: Wear Neoprene, Nitrile, Butyl Rubber or Natural Rubber gloves. **Note:** Always consult the glove manufacturer's permeation data when determining the suitability of gloves prior to use.

CLOTHING & EQUIPMENT: If contact is likely, wear a Neoprene, Nitrile, Butyl Rubber or Natural Rubber apron when handling this product. An eye wash station and safety shower should be available in the work area. **Note:** Always consult the clothing/equipment manufacturer's permeation data when determining the suitability of clothing/equipment prior to use.

FOOTWEAR: In cleaning up a spill, or if contact is likely, wear Neoprene, Nitrile, Butyl Rubber or Natural Rubber boots. **Note:** Always consult the footwear manufacturer's permeation data when determining the suitability of footwear prior to use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Slightly hazy greenish brown	**Bulk Density (pounds/ft^3):**	Not applicable
Physical State:	Liquid	**Vapor Pressure:**	No data available
Odor:	Characteristic	**Vapor Density (air=1):**	No data available
Odor Threshold:	No data available	**Evaporation Rate (n-Butyl Acetate=1):**	No data available
Molecular Formula:	Mixture	**VOC Content / Organic Matter:**	No data available / 6.0%
Molecular Weight:	Not applicable	**% Volatile:**	No data available
Boiling Point:	Greater than 100° C. (212° F.)	**Solubility in H_2O:**	Complete
Freezing/Melting Point:	Less than 0° C. (32° F.)	**Octanol/Water Partition Coefficient:**	No data available
Specific Gravity:	1.19 @ 20° C.	**pH (as is):**	1.0 - 2.0
Density (pounds/gallon):	Approximately 9.93	**pH (1% solution):**	No data available

SECTION 10: STABILITY AND REACTIVITY

GENERAL: This product is stable and hazardous polymerization will not occur.

CONDITIONS TO AVOID: Do not store this product below 50° F (10° C) or above 90° F (30° C)

INCOMPATIBLE MATERIAL: Contact caustics & alkali, strong oxidizers, sulfides, sulfites, cyanides and chlorine releasers.

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to dryness and decomposition, it emits toxic oxides of carbon, iron, sulfur and nitrogen, with trace or ultra-trace toxic oxide amounts, of zinc, copper, potassium, phosphorus, manganese, magnesium, calcium and sodium plus irritating smoke.

SENSITIVITY TO MECHANICAL IMPACT: This product is not sensitive to mechanical impact.

SENSITIVITY TO STATIC DISCHARGE: This product is not sensitive to static discharge.

SECTION 11: TOXICOLOGICAL INFORMATION

Components:	**Ferrous Sulfate Heptahydrate**	**Citric Acid Anhydrous**
Eye Contact:	No data available	Rabbit: 750 ug/24 Hours; Severe
Skin Contact:	No data available	Rabbit: 500 mg/24 Hours; Moderate
Oral Rat LD_{50}:	319 mg/kg	3 gm/kg
Dermal Rabbit LD_{50}:	No data available	No data available
Inhalation Rat LC_{50}:	No data available	No data available
Human Data:	Oral Woman TD_{Lo}: 10,560 ug/kg; Gastrointestinal effects	No data available
Other Toxicological Data:	Oral Mouse LD_{50}: 680 mg/kg	Intravenous Mouse LD_{50}: 42 mg/kg
Carcinogenicity:	Subcutaneous Mouse TD_{Lo}:1,600 mg/kg/16 Weeks; Equivocal Tumorigenic Agent, Tumors at application site	No data available
Teratogenicity:	Oral Rat TD_{Lo}: 7,200 mg/kg (9-14 Days pregnant); Effects on Embryo or Fetus – Fetal death	No data available
Mutagenicity:	Cytogenetic Analysis – Hamster, Ovary: 5 mmol/ Liter	No data available
Synergistic Products:	None reported	None reported
Target Organs:	Eyes, Skin, Lungs, Liver, Gastrointestinal tract & Lymphatic System	Eyes, Skin, Mucous membranes, Lungs & Teeth
Medical Conditions Aggravated By Exposure:	Skin, Liver or Respiratory disorders	Skin or Respiratory disorders

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

This product is soluble in water and can affect the pH of water. No specific environmental fate data is available.

ENVIRONMENTAL CONSIDERATIONS:

The aquatic toxicity for this product has not been determined.

SECTION 13: DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 CLASSIFICATON: Corrosive

U.S. EPA WASTE NUMBER/DESCRIPTION: D002

If this product is disposed of as shipped, it meets the criteria of a hazardous waste as defined under 40 CFR 261 due to its corrosivity. If this product becomes a waste, it will be a hazardous waste which is subject to the Land Disposal Restrictions under 40 CFR 268 and must be managed accordingly. As a hazardous liquid waste, it must be disposed of in accordance with local, state, and federal regulations in a permitted hazardous waste treatment, storage, and disposal facility.

SECTION 14: TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: **Corrosive Liquid, n.o.s., (Contains Citric Acid),**

Hazard Class: 8 **UN Number:** UN1760 **Packing Group:** III

Primary Label: Corrosive **Subsidiary Label(s):** None

Primary/Subsidiary Placards: None

DOT Reportable Quantity (RQ): Not Applicable **RQ for Product:** Not Applicable

Marine Pollutant: No

2012 North American Emergency Response Guidebook No.: **154**

TDG PROPER SHIPPING NAME: **Corrosive Liquid, n.o.s., (Contains Citric Acid),**

Hazard Class: 8 **UN Number:** UN1760 **Packing Group:** III

Primary Label: Corrosive **Subsidiary Label(s):** None

Primary/Subsidiary Placards: None

TDG Reportable Quantity (RQ): * Not applicable

TDG Schedule XII: Not listed

Regulated Limit (RL): ** Not listed **RL for Product:** N/A

Other Shipping Information: None

* Canadian Transportation of Dangerous Goods Regulations (TDGR), Part IX, Table I, Quantities or levels for Immediate Reporting: releases of reportable quantities, RQ, that meet the definition of a "dangerous occurrence" (a threat to life, health, property, or the environment) must be reported to the appropriate authorities as outlined in TDGR 9.13(1) and 9.14(1). ** Reporting to Environment Canada is required for any releases exceeding the regulated limits, RL, of 9.2 materials (primary or secondary). The regulated limits are found in Schedule XIII of the TDGR.

SECTION 15: REGULATORY INFORMATION

COMPONENTS:	**Ferrous Sulfate Heptahydrate**	**Citric Acid Anhydrous**
OSHA Target Organs:	Eyes, Skin, Lungs, Liver, Gastrointestinal & Lymphatic Systems	Eyes, Skin, Mucous membranes, Lungs & Teeth
Carcinogenic Potential:		
Regulated by OSHA:	No	No
Listed on NTP Report:	No	No
Listed by IARC:	No	No
IARC Group:	Not applicable	Not applicable
ACGIH Appendix A:	Not listed	Not listed
A1 Confirmed Human:	Not applicable	Not applicable
A2 Suspected Human:	Not applicable	Not applicable

U.S. EPA Requirements

Release Reporting

CERCLA (40 CFR 302)

Listed Substance:	Yes	Not listed
Reportable Quantity:	1,000 pounds	Not applicable
Category:	C	Not applicable
RCRA Waste No.:	None listed	Not applicable
Unlisted Substance:	Not applicable	Yes
Reportable Quantity:	Not applicable	100 pounds
Characteristic:	Not applicable	Corrosivity
RCRA Waste No.:	Not applicable	D002

SECTION 15: REGULATORY INFORMATION (Continued from Page 4)

COMPONENTS:	**Ferrous Sulfate Heptahydrate**	**Citric Acid Anhydrous**

SARA TITLE III

Section 302 & 303 (40 CFR 355):

Listed Substance:	Not listed	Not listed
Reportable Quantity:	Not applicable	Not applicable
Planning Threshold:	Not applicable	Not applicable

Section 311 & 312 (40 CFR 370):

Hazard Categories (**product**): **Fire: N** **Sudden Release of Pressure: N** **Reactive: N** **Acute Health: Y** **Chronic Health: N**

Planning threshold:	10,000 pounds	10,000 pounds

Section 313 (40 CFR 372):

Listed Toxic Chemical:	Not listed	Not listed
Reporting Threshold:	Not applicable	Not applicable

U.S. TSCA Status

Listed (40 CFR 710):	Yes	Yes

State Regulations

State of California: Safe Drinking Water and Toxins Enforcement Act, 1986 (Proposition 65):

Carcinogen:	No	No
Reproductive Toxin:	No	No

Other Regulations

State Right To Know Laws:	None known	MA, NJ, PA

Canadian Regulations

Product Information:

Controlled Product:	**Yes**
WHMIS Hazard Symbols:	**Material Causing Other Toxic Effects**
WHMIS Class & Division:	**D.2B**

Ingredient Information:

IDL Substance:	No	Yes
DSL or NDSL Lists:	DSL	DSL

SECTION 16: OTHER INFORMATION

EPA Registration number: Not applicable

Approved Product Uses: Used as a part of a plant nutrition program.

Special Notes:

This product is not manufactured, or formulated to contain substances, which the State of California has found to cause cancer and/or birth defects or other reproductive harm. However, as it contains mined minerals, this product may contain trace (parts per million) or ultra-trace (parts per billion) of elements known to the State of California to cause cancer, birth defects or other reproductive harm.

Special Instructions: When making dilutions, always add OM Iron to water with adequate mixing to ensure a uniform solution. Do not add this product to hypochlorite bleaches, chlorine sanitizers, or chlorinated cleaners as this can liberate toxic, corrosive Chlorine gas.

SDS Revision Information: Revised Date: 6/28/2023

SDS Distributed by: Huma, Inc.

Prepared By:	Anna Carpenter	**Date**	May 3rd 2018