



Marco NPK  
SAFETY DATA SHEET

DATE PREPARED: 12/05/25

CURRENT AS OF: 12/15/25

**SECTION 1: PRODUCT / SUPPLIER IDENTIFICATION**

PRODUCT CODE:

PRODUCT NAME: IRON PLUS

PRODUCT USE: Fertilizer

MFR INFO:

FOR EMERGENCY: Chemtrec (800) 424-9300 (within the USA)  
(202) 483-7616 (outside the USA)

FOR INFORMATION: 561-516-5278

**SECTION 2: HAZARDS IDENTIFICATION**

HAZARD SYMBOLS / STATEMENTS:



**DANGER**

**CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. CAUSES RESPIRATORY IRRITATION. HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE AN ALLERGIC SKIN REACTION. MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED. CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE. SUSPECTED OF CAUSING GENETIC DEFECTS. MAY CAUSE CANCER.**

HAZARD CLASSIFICATIONS:

*EYE DAMAGE*  
*SKIN IRRITATION*  
*ACUTE TOXICITY, ORAL*  
*ACUTE TOXICITY, INHALATION*  
*SPECIFIC TARGET ORGAN TOXICITY*  
*- SINGLE EXPOSURE*  
*SKIN SENSITIZATION*  
*RESPIRATORY SENSITIZATION*  
  
*CARCINOGENICITY*

CATEGORY

1  
1B  
4  
4  
  
3  
1  
1  
  
1B

INTERPRETATION

Causes serious eye damage  
Causes severe skin burns  
Harmful if swallowed  
Harmful if inhaled  
  
May cause respiratory irritation  
May cause an allergic skin reaction  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
Suspected of causing genetic defects  
May cause cancer

PRECAUTIONARY STATEMENTS:

- *STORE LOCKED UP*
- *WEAR PROTECTIVE GLOVES AND CLOTHING*

**IRON PLUS**

- REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE
- DO NOT BREATHE VAPORS/MISTS
- IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/ATTENTION
- SEEK MEDICAL ATTENTION IF YOU FEEL UNWELL
- IF INHALED: MOVE TO FRESH AIR AND KEEP COMFORTABLE. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS
- USE ONLY OUTDOORS OR IN WELL-VENTILATED AREA
- CALL POISON CONTROL OR SEEK MEDICAL ATTENTION IF YOU FEEL UNWELL
- WASH THOROUGHLY AFTER HANDLING
- DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT
- IF SWALLOWED: RINSE MOUTH AND SEEK MEDICAL ATTENTION
- IF IN EYES OR ON SKIN: RINSE AREA WITH PLENTY OF WATER, REMOVE CONTACT LENSES; AFTER RINSING SEEK MEDICAL ATTENTION
- IF SKIN IRRITATION CONTINUES: SEEK MEDICAL ATTENTION

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

<u>CHEMICAL IDENTITY</u>	<u>SYNONYM</u>	<u>CAS NUMBER</u>	<u>CONCENTRATION (%)</u>
Cobalt Sulfate		10026-24-1	00-10
Nickel Sulfate		7786-81-4	00-10
Iron Sulfate		7782-63-0	10-20
Manganese Sulfate		10034-96-5	00-10
Sulfuric Acid	Oil of vitriol	7664-93-9	00-10

**SECTION 4: FIRST AID MEASURES**

IF INHALED:	Move to fresh air and keep comfortable, seek medical attention if unwell.
IF ON SKIN:	Wash affected areas with soap and water. Seek medical attention if irritation persists. Wash contaminated clothing before re-use.
IF IN THE EYES:	Immediately flush with water for 15-20 minutes, remove contact lenses if present and easy to do – continue rinsing and seek medical attention.
IF SWALLOWED:	Rinse mouth. DO NOT INDUCE VOMITING unless directed by a medical professional. Seek medical attention.
SPECIAL TREATMENT:	None known
HEALTH HAZARDS:	See Section 11

**SECTION 5: FIREFIGHTING MEASURES**

EXTINGUISHING MEDIA:	Use media suitable for surrounding fire. No special media required.
SPECIFIC FIRE HAZARDS:	When heated to decomposition, this product will emit toxic oxides/fumes and sulfides.
SPECIAL FIREFIGHTING PROCEDURES:	Wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA).

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

## IRON PLUS

SPILL / RELEASE PROCEDURES:	Contain material and place in containers for use as intended, or discard according to Federal, State and Local regulations.
ENVIRONMENTAL PRECAUTIONS:	Prevent spilled material from entering storm drains or water bodies. If material enters a waterway, notify the appropriate authorities.
PROTECTIVE EQUIPMENT:	Wear PPE according to Section 8

### SECTION 7: HANDLING AND STORAGE

Wash hands after handling material. Do not eat, drink or smoke while handling the material. Do not breathe vapors/mists. Not intended for human consumption. Store locked up in a cool, dry, well-ventilated area away from incompatible materials.

### SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

#### EXPOSURE LIMITS:

The following constituents are the only constituents of the product, which have a PEL, TLV or other recommended exposure limit. Currently, the other constituents have no known exposure limits.

<u>HAZARDOUS COMPONENT</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Nickel Sulfate	1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>
Sulfuric Acid	1 mg/m <sup>3</sup> (TWA)	0.2 mg/m <sup>3</sup> (TLV)
Manganese Compounds	5mg/m <sup>3</sup>	0.2mg/m <sup>3</sup>
Ferrous Sulfate		1 mg/m <sup>3</sup> (TWA) 1 mg/m <sup>3</sup> (TWA) (NIOSH)

#### PERSONAL PROTECTIVE EQUIPMENT / PROTECTION MEASURES / CONTROLS:

RESPIRATORY PROTECTION:	NIOSH approved respirator, if required
EYE PROTECTION:	Safety glasses with sideshields, goggles, or faceshield
SKIN PROTECTION:	Appropriate for the task. Impervious and compatible with material
VENTILATION:	Use with adequate ventilation

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Light red solution with metallic odor
pH:	~ 0.40
MELTING POINT:	Not applicable
BOILING POINT:	Not available
FLASH POINT:	Not flammable
EVAPORATION RATE:	Not available
FLAMMABLE LIMITS:	Not applicable
VAPOR PRESSURE:	Not available
VAPOR DENSITY:	Not available
SPECIFIC GRAVITY:	~ 1.255
SOLUBILITY (IN WATER):	Soluble
PARTITION COEFFICIENT:	Not available
AUTOIGNITION TEMP:	Not available
DECOMPOSITION TEMP:	Not available
ODOR THRESHOLD:	Not available

**IRON PLUS**

VISCOSITY: Not available

**SECTION 10: STABILITY AND REACTIVITY**

STABILITY: Product is stable.

CONDITIONS TO AVOID: Heat

INCOMPATIBILITY: Strong bases and oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic oxides/fumes and sulfides.

**SECTION 11: TOXICOLOGICAL INFORMATION**

HEALTH EFFECTS: Causes severe skin burns and eye damage. Causes irritation to the respiratory tract. Harmful if swallowed. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes damage to the central nervous system. Suspected of causing genetic defects. May cause cancer.

CARCINOGENICITY: Cobalt Sulfate is classified as Possibly carcinogenic to humans (Group 2B) according to IARC. This product contains sulfuric acid (acid mists) (Group 1) which has been classified by IARC as a known human carcinogen.

**INGREDIENT TOXICITY RANGES:**

ORAL: &gt; 264 mg/kg (nickel sulfate) – 424 mg/kg (cobalt sulfate)

DERMAL: &gt; 155 mg/kg (ferrous sulfate)

INHALATION: &gt; 347 ppm (sulfuric acid, 1hr)

**SECTION 12: ECOLOGICAL INFORMATION**

Very toxic to aquatic life with long-lasting effects. Long-term degradation products may arise. Products of degradation are not expected to be hazardous.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Use product for intended purpose where possible. Dispose of in accordance with all national, regional / state, and local regulations.

**SECTION 14: TRANSPORT INFORMATION**

UN NUMBER:	UN3264
PROPER SHIPPING NAME:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS SULFURIC ACID)
TRANSPORT HAZARD CLASS:	8
PACKING GROUP:	III

**SECTION 15: REGULATORY INFORMATION**

SARA 311/312: ACUTE, CHRONIC

SARA 313: Cobalt Sulfate  
Sulfuric AcidManganese Compounds  
REPORTABLE QUANTITY: Nickel Sulfate (100 lbs)  
Sulfuric Acid (1000 lbs)

**IRON PLUS**

Manganese Compounds (No RQ)

RIGHT-TO-KNOW:

Nickel Sulfate (MA, ME, PA, VT, WA)  
Sulfuric Acid (MA, NJ, PA)  
Manganese Compounds (CA, MA, MN, NJ, PA)  
Manganous Sulfate (CA, MN, NJ, PA)

CLEAN WATER ACT:

Sulfuric Acid (1000 lbs)

DEA List II of Essential Chemicals:

Sulfuric Acid (50 gallons, export)

CA PROP 65:

Cobalt Sulfate  
Sulfuric Acid Mists

**SECTION 16: OTHER INFORMATION**

NFPA RATINGS:	HEALTH	3
	FLAMMABILITY	0
	INSTABILITY	0

HMIS RATINGS:	HEALTH	3
	FLAMMABILITY	0
	INSTABILITY	0

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