

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07.

Date of issue: 01/30/2025

Reviewed on 01/29/2025

1 Identification

- **Product identifier**

- **Trade name:** 0-0-4-MIV (0-0-4 MEG IRON V)

- **Other means of identification**

- **Product Description:**

Polymer Coated Fertilizer



This product was developed in conjunction; and with assistance from NASA using cutting edge research, quality control and scientific methodology.

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

FLORIKAN E.S.A. LLC

2404 Commerce Court

Bowling Green, Florida 33834

(941) 379-4048

www.Profileproducts.com

- **Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS07

Skin irritation 2 H315 Causes skin irritation.

Eye irritation 2B H320 Causes eye irritation.

- **Additional information:** Aquatic Acute 3 H402 Harmful to aquatic life.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard statements**

Causes skin and eye irritation.

- **Precautionary statements**

Wash thoroughly after handling.

Wear protective gloves.

If on skin: Wash with plenty of water.

Specific treatment (see on this label).

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

Unknown acute toxicity:

This value refers to knowledge of known, established toxicological or ecotoxicological values.

0 % of the mixture consists of component(s) of unknown toxicity.

Information pertaining to particular dangers for man and environment:
Classification system: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

NFPA ratings (scale 0 - 4)


Health = 1

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)


HEALTH 1 Health = 1

FIRE 0 Fire = 0

REACTIVITY 0 Reactivity = 0

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.

vPvB: Not applicable.

Classification according to (d)(1)(ii) of § 1910.1200

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

CAS: 7704-34-9	sulfur	⚠ Skin irritation 2, H315	≥10–≤13%
CAS: 7439-96-5 RTECS: OO 9275000	Manganese	⚠ Flammable solids 2, H228; ⚠ Eye irritation 2A, H319	1–5%

Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

DERIVED FROM: Iron Citrate, Iron Sucrate, Magnesium Sucrate, Copper Sucrate, Zinc Sucrate, Ferrous Sulfate, Sulfate of Potash Magnesia, Iron EDTA, Ferrous Sulfate, Manganese Sulfate, Magnesium Sulfate, Magnesium Oxide, Copper Sulfate, Zinc Sulfate, Dolomitic Limestone

*The Ferrous Sulfate has been polymer coated to provide 2.50% slow release Iron (Fe).

4 First-aid measures

Description of first aid measures
General information: If symptoms persist, call a physician.

After inhalation: In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

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· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

If eye irritation occurs, consult a doctor.

If easy to do so, remove contact lenses if worn.

· After swallowing: If swallowed and symptoms occur, consult a doctor.

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

5 Fire-fighting measures

· Extinguishing media

· Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** No further relevant information.

· Special hazards arising from the substance or mixture

Magnesium oxide takes up carbon dioxide and water from the air. Combines with water to form magnesium hydroxide.

May have a violent reaction or ignition on contact with inter-halogens.

· Advice for firefighters

· Protective equipment:

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.

· Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:** Pick up mechanically.

· Protective Action Criteria for Chemicals

Protective Action Criteria (PACs) are essential components for planning and response to uncontrolled releases of hazardous chemicals.

· PAC-1:

PAC 1: Mild, transient health effects.

7439-95-4	Magnesium	18 mg/m ³
7439-89-6	Iron	1.8 mg/m ³
7439-96-5	Manganese	3 mg/m ³

· PAC-2:

PAC 2: Irreversible or other serious health effects that could impair the ability to take protective action.

7439-95-4	Magnesium	200 mg/m ³
7439-89-6	Iron	20 mg/m ³
7439-96-5	Manganese	5 mg/m ³

· PAC-3:

PAC 3: Life-threatening health effects.

7439-95-4	Magnesium	1,200 mg/m ³
7439-89-6	Iron	120 mg/m ³
7439-96-5	Manganese	1,800 mg/m ³

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Keep container tightly closed.
Protect from moisture.
Keep out of reach of children.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Protect from humidity and water.
Store in dry conditions.
Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

7439-96-5 Manganese

PEL	Ceiling limit value: 5 mg/m ³ as Mn
REL	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³ fume, as Mn
TLV	Long-term value: 0.02* 0.1** mg/m ³ as Mn; A4, *respirable **inhalable fraction

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

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· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Safety glasses

· **Limitation and supervision of exposure into the environment**

Keep away from drains, surface and ground waters.

Avoid release into the environment.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Solid

· **Color:**

Whitish

· **Odor:**

Slight

· **Odor threshold:**

Not determined.

· **Melting point/Melting range:**

Undetermined.

· **Boiling point/Boiling range:**

850 °C (1,562 °F)

· **Flammability:**

Not determined.

· **Explosion limits:**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

Not applicable.

· **Decomposition temperature:**

Not determined.

· **pH-value:**

Not applicable.

· **Viscosity:**

· **Kinematic:**

Not applicable.

· **Dynamic:**

Not applicable.

· **Solubility in / Miscibility with**

· **Water:**

Soluble.

· **Partition coefficient (n-octanol/water):**

Not determined.

· **Vapor pressure:**

Not applicable.

· **Vapor pressure:**

· **Density:**

Not determined.

· **Relative density**

Not determined.

· **Vapor density**

Not applicable.

· **Particle characteristics**

Not determined.

· **Other information**

· **Appearance:**

· **Form:**

Granulate

· **Important information on protection of health and environment, and on safety.**

· **Ignition temperature:**

Product is not selfigniting.

· **Danger of explosion:**

Product does not present an explosion hazard.

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- **Solvent content:**
- **VOC content:** 0.00 %
- **Change in condition**
- **Oxidizing properties** None

10 Stability and reactivity

- **Reactivity**
The product is stable under normal conditions.
No further relevant information available.
- **Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Magnesium hydroxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

7439-96-5 Manganese

Oral LD50 9,000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Interactive effects** No interactive effects between components are known.

- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Alternative sources for toxicological information**

No non-standard sources for toxicological information where used.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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- **vPvB:** Not applicable.
- **Other adverse effects**
- **Additional ecological information:**
- **General notes:**
 Water hazard class 3 (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into the ground.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
 Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name**
- **DOT, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es)**
- **DOT, ADN, IMDG, IATA**
- **Class** Non-Regulated Material
- **Packing group**
- **DOT, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Special precautions for user** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 No further relevant information available.
- **Sara**

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

7439-96-5 Manganese

· TSCA (Toxic Substances Control Act):

7704-34-9	sulfur	ACTIVE
7439-95-4	Magnesium	ACTIVE
7439-89-6	Iron	ACTIVE
7447-40-7	potassium chloride	ACTIVE
7439-96-5	Manganese	ACTIVE

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7647-14-5	sodium chloride	ACTIVE
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· **Hazardous Air Pollutants**

7439-96-5	Manganese
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· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **New Jersey Right-to-Know List:**

7704-34-9	sulfur
7439-95-4	Magnesium
7439-96-5	Manganese

· **New Jersey Special Hazardous Substance List:**

7439-96-5	Manganese	F3, R1
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· **Pennsylvania Right-to-Know List:**

7704-34-9	sulfur
7439-95-4	Magnesium
7439-96-5	Manganese

· **Pennsylvania Special Hazardous Substance List:**

7439-96-5	Manganese	E
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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

7439-96-5	Manganese	D
7440-66-6	zinc powder -zinc dust (stabilized)	II

· **TLV (Threshold Limit Value)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard statements**

Causes skin and eye irritation.

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· **Precautionary statements**

Wash thoroughly after handling.

Wear protective gloves.

If on skin: Wash with plenty of water.

Specific treatment (see on this label).

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **SDS created by:** Access GHS, LLC - 888-363-4870 - Team@access-ghs-sds.com

· **Date of previous version** 09/04/2015

· **Version number of previous version:** 1

· **Date of preparation** 01/30/2025

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable solids 2: Flammable solids – Category 2

Skin irritation 2: Skin corrosion/irritation – Category 2

Eye irritation 2A: Serious eye damage/eye irritation – Category 2A

Eye irritation 2B: Serious eye damage/eye irritation – Category 2B