

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Printing date 08/21/2024

Reviewed on 08/21/2024

* 1 Identification

· **Product identifier**

· **Trade name:** 16-4-15-300-FRL

· **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

· **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**

The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.

The product is not classified, according to the Globally Harmonized System (GHS).

· **Additional information:** Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **Label elements**

· **GHS label elements** Non-Regulated Material

· **Hazard pictograms** Non-Regulated Material

· **Signal word** Non-Regulated Material

· **Hazard statements** Non-Regulated Material

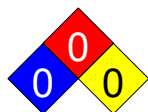
· **Unknown acute toxicity:**

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

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

· **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

· **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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 · **vPvB:** Not applicable.

3 Composition/information on ingredients

 · **Chemical characterization:** Mixtures

 · **Description:** Mixture of the substances listed below with nonhazardous additions.

 · **Dangerous components:**

Non-Regulated Material

CAS: 7704-34-9	sulfur	 Skin Irritation 2, H315	3–7%
CAS: 1314-56-3 RTECS: TH 3945000	Available Phosphate (P ₂ O ₅)	 Skin Corrosion 1A, H314	≥1–<5%

 · **Additional information:**

DERIVED FROM: Polymer Coated: Ammonium Nitrate, Ammonium Phosphate, Sulfate of Potash, Magnesium Sulfate, Iron EDTA, Manganese Sulfate, Muriate of Potash, Potassium Nitrate, Sodium Borate, Sodium Molybdate, Zinc Sulfate
 *The following nutrients have been coated to provide 16% Slow Release Nitrogen (N), 4% Slow Release Available Phosphate (P₂O₅), and 15% Slow Release Soluble Potash (K₂O), 1.2% Slow Release Magnesium (Mg), 0.025% Slow Release Boron (B), 0.28% Slow Release Iron (Fe), 5.5% Slow Release Sulfur (S), 0.11% Slow Release Manganese (Mn), 0.01% Slow Release Molybdenum (Mo), and 0.07% Slow Release Zinc (Zn).

4 First-aid measures

 · **Description of first aid measures**

 · **General information:** No special measures required.

 · **After inhalation:** Supply fresh air; consult doctor in case of complaints.

 · **After skin contact:**

Wash with soap and water.

If skin irritation occurs, consult a doctor.

 · **After eye contact:**

Rinse opened eye for several minutes under running water.

If eye irritation occurs, consult a doctor.

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

 · **Information for 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** No further relevant information available.

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

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

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· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **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.

7727-37-9	Slow release nitrogen	7.96E+05 ppm
1314-56-3	Available Phosphate (P_2O_5)	1 mg/m ³
7439-95-4	Magnesium	18 mg/m ³
7439-89-6	iron	3.2 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.

7727-37-9	Slow release nitrogen	8.32E+05 ppm
1314-56-3	Available Phosphate (P_2O_5)	10 mg/m ³
7439-95-4	Magnesium	200 mg/m ³
7439-89-6	iron	35 mg/m ³
7439-96-5	manganese	5 mg/m ³

· **PAC-3:**

PAC 3: Life-threatening health effects.

7727-37-9	Slow release nitrogen	8.69E+05 ppm
1314-56-3	Available Phosphate (P_2O_5)	50 mg/m ³
7439-95-4	Magnesium	1,200 mg/m ³
7439-89-6	iron	150 mg/m ³
7439-96-5	manganese	1,800 mg/m ³

* 7 Handling and storage

· **Handling:**

· **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 out of reach of children.

Store in a cool, dry place in tightly closed receptacles.

Protect from moisture.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** Protect from humidity and water.

· **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

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· **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 other constituents have no known exposure limits.

7727-37-9 Slow release nitrogen

TLV | see App. F Minimal oxygen content (D)

· **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

· **Breathing equipment:** Not required.

· **Protection of hands:** Not required.

· **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:** Not required.

· **Limitation and supervision of exposure into the environment** None

* 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Granulate

Color: Grey

· **Odor:** Slight

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability:** Not determined.

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapor pressure:** Not applicable.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapor density** Not applicable.

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- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with Water:** Soluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Solvent content:**
 - VOC content:** 0.00 %
 - Solids content:** 100.0 %
- **Other information** No further relevant information available.

* 10 Stability and reactivity

- **Reactivity** The product is stable under normal conditions.
- **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:** No dangerous decomposition products known.

* 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **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.

* 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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· **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.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

* 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** not regulated

· **UN proper shipping name**

· **DOT, IMDG, IATA** not regulated

· **Transport hazard class(es)**

· **DOT, ADN, IMDG, IATA**

· **Class** not regulated

· **Packing group**

· **DOT, IMDG, IATA** not regulated

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **UN "Model Regulation":** not regulated

* 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):**

1314-56-3	Available Phosphate (P ₂ O ₅)
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· **Section 313 (Specific toxic chemical listings):**

7439-96-5	manganese
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· **TSCA (Toxic Substances Control Act):**

7727-37-9	Slow release nitrogen	ACTIVE
7447-40-7	potassium chloride	ACTIVE
7704-34-9	sulfur	ACTIVE
1314-56-3	Available Phosphate (P ₂ O ₅)	ACTIVE

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7439-95-4	Magnesium	ACTIVE
7439-89-6	iron	ACTIVE
7647-14-5	sodium chloride	ACTIVE
7439-96-5	manganese	ACTIVE

· 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:

7727-37-9	Slow release nitrogen	
7704-34-9	sulfur	
1314-56-3	Available Phosphate (P_2O_5)	
7439-95-4	Magnesium	
7439-96-5	manganese	

· New Jersey Special Hazardous Substance List:

1314-56-3	Available Phosphate (P_2O_5)	CO, R2
7439-96-5	manganese	F3, R1

· Pennsylvania Right-to-Know List:

7727-37-9	Slow release nitrogen	
7704-34-9	sulfur	
1314-56-3	Available Phosphate (P_2O_5)	
7439-95-4	Magnesium	
7439-96-5	manganese	

· Pennsylvania Special Hazardous Substance List:

1314-56-3	Available Phosphate (P_2O_5)	E
7439-96-5	manganese	E

· Carcinogenic categories

· EPA (Environmental Protection Agency)

7439-96-5	manganese	D
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· 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 Void

· Hazard pictograms Void

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- **Signal word** Void
- **Hazard statements** Void
- **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.

- **Department issuing SDS:** Environment protection department.
- **SDS created by:** Access GHS, LLC - 888-363-4870 - Team@access-ghs-sds.com
- **Date of preparation / last revision** 08/21/2024 / -
- **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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Corrosion 1A: Skin corrosion/irritation – Category 1A

Skin Irritation 2: Skin corrosion/irritation – Category 2

- *** Data compared to the previous version altered.**