

Safety Data Sheet

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

Date of issue: 07/25/2025

Reviewed on 07/25/2025

1 Identification

- **Product identifier**
- **Trade name: 16-5-9 - NPK PLUS**
- **Other means of identification**
- **Product Description:** Polymer Coated Fertilizer
- **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.

Specific target organ toxicity (single exposure) 3 H335 May cause respiratory irritation.

Eye irritation 2B

H320 Causes eye irritation.

- **Additional information:**

Heavy Metal Statement: Information regarding the contents and levels of metals in this product is available on the internet at <http://www.aapfco.org/metals.html>

CAUTION: KEEP OUT OF THE REACH OF CHILDREN HARMFUL IF SWALLOWED. This product must be stored under cool and dry conditions.

Environmental Caution: As a precaution, fertilizer products should not be applied within 15 feet of any water body.

Caution: The application of fertilizer containing Molybdenum (Mo) may result in forage crops containing levels of Molybdenum which may be toxic to ruminant animals.

NOTE: Fertilizer products can be hygroscopic and may be affected by humidity and/or heat during improper storage. Please keep this fertilizer product in a dry condition and away from heat and moisture which may start release in the bag.

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



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· **Signal word** *Warning*

· **Hazard-determining components of labeling:**

Ammonium nitrate

molybdenum

· **Hazard statements**

Causes skin and eye irritation.

May cause respiratory irritation.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves.

If on skin: Wash with plenty of water.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

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

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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

Fire = 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.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

	potassium nitrate ⚠ Oxidizing solids 3, H272	5–10%
CAS: 7704-34-9	sulfur ⚠ Skin irritation 2, H315	1–5%
CAS: 6484-52-2	Ammonium nitrate ⚠ Oxidizing solids 3, H272; ⚠ Skin irritation 2, H315; Eye irritation 2A, H319; Specific target organ toxicity (single exposure) 3, H335-H336	1–5%
CAS: 57-13-6 RTECS: YR 6250000	Urea	1–5%
CAS: 7439-98-7 RTECS: QA 4680000	molybdenum ⚠ Skin irritation 2, H315; Eye irritation 2A, H319; Specific target organ toxicity (single exposure) 3, H335	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

Polymer coated ammonium nitrate, polymer coated monoammonium phosphate, polymer coated diammonium phosphate, polymer coated calcium phosphate, polymer coated sulfate of potash, magnesium carbonate, magnesium oxide, copper oxide, copper sulfate, ferric oxide, ferrous sulfate, iron sucrate, manganese oxide, manganese sulfate, sodium molybdate, zinc sulfate and zinc oxide.

*8.50% slowly available ammoniacal nitrogen (N) derived from polymer coated ammonium nitrate, polymer coated monoammonium phosphate, and polymer coated diammonium phosphate. 7.50% slowly available nitrate nitrogen (N) from polymer coated ammonium nitrate. 5.00% slowly available phosphate (P2O5) from polymer coated monoammonium phosphate, polymer coated diammonium phosphate, and polymer coated calcium phosphate. 9.00% slowly available soluble potash (K2O) and 3.50% slowly available sulfur (S) from polymer coated sulfate of potash.

* 4 First-aid measures

· **Description of first aid measures**

· **General information:** Keep out of reach of children.

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

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water.

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

If eye irritation occurs, consult a doctor.

· **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.

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* 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
 Use fire fighting measures that suit the environment.

· **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**

Wear protective clothing.

Use only outdoors or in a well-ventilated area.

· **Environmental precautions:** 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.

	potassium nitrate	9 mg/m ³
6484-52-2	Ammonium nitrate	6.7 mg/m ³
57-13-6	Urea	30 mg/m ³
7439-89-6	Iron	1.8 mg/m ³
7439-98-7	molybdenum	30 mg/m ³
7439-95-4	Magnesium	18 mg/m ³
7439-96-5	Manganese	3 mg/m ³
7440-50-8	copper	3 mg/m ³

· **PAC-2:**

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

	potassium nitrate	100 mg/m ³
6484-52-2	Ammonium nitrate	73 mg/m ³
57-13-6	Urea	280 mg/m ³
7439-89-6	Iron	20 mg/m ³
7439-98-7	molybdenum	330 mg/m ³
7439-95-4	Magnesium	200 mg/m ³
7439-96-5	Manganese	5 mg/m ³
7440-50-8	copper	33 mg/m ³

· **PAC-3:**

PAC 3: Life-threatening health effects.

	potassium nitrate	600 mg/m ³
6484-52-2	Ammonium nitrate	440 mg/m ³

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57-13-6	Urea	1,700 mg/m ³
7439-89-6	Iron	120 mg/m ³
7439-98-7	molybdenum	2,000 mg/m ³
7439-95-4	Magnesium	1,200 mg/m ³
7439-96-5	Manganese	500 mg/m ³
7440-50-8	copper	200 mg/m ³

· **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.

* 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:**

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

Store in a well-ventilated place.

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

· **Further information about storage conditions:**

Protect from humidity and water.

Store in cool, dry conditions in well sealed receptacles.

· **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 constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

57-13-6 Urea	
WEEL	Long-term value: 10 mg/m ³
7439-98-7 molybdenum	
PEL	Long-term value: 15* mg/m ³ *Total dust, as Mo
TLV	Long-term value: 10* 3** mg/m ³ as Mo; *inhalable fraction ** respirable fraction

· **Regulatory information**

WEEL: Guide to Occupational Exposure Values (AIHA WEELs)

PEL: Guide to Occupational Exposure Values (OSHA PELs)

TLV: Guide to Occupational Exposure Values (TLV)

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

· **Exposure controls**

Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. Where acceptable concentrations cannot be maintained by general mechanical ventilation, local exhaust ventilation is recommended.

· **Appropriate engineering controls** No further data; see section 7.

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- **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:**



Protective gloves

- **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

- **Body protection:**



Protective work clothing

- **Limitation and supervision of exposure into the environment** Do not let product enter drains.

9 Physical and chemical properties

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

- **General Information**

· Physical state	Solid
· Color:	Greyish
· Odor:	Slight
· Odor threshold:	Not determined.
· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.
· 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.
· Density:	Not determined.
· Relative density	Not determined.

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- **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 self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Solvent content:**
- **Water:** 2.1 %
- **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:** No dangerous decomposition products known.

11 Toxicological information

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

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

potassium nitrate

Oral	LD50	3,750 mg/kg (Rat)
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6484-52-2 Ammonium nitrate

Oral	LD50	2,217 mg/kg (Rat)
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57-13-6 Urea

Oral	LD50	8,471 mg/kg (Rat)
Dermal	LD50	>21,000 mg/kg (Rabbit)
Inhalative	LC50/96 hours	17,500 Mg/l (other fish)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Interactive effects** No interactive effects between components are known.

· **Carcinogenic categories**

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

None of the ingredients is listed.

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· 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 were used.

12 Ecological information

· Toxicity
· Aquatic toxicity:
57-13-6 Urea
EC50 >10,000 mg/kg (daphnia)
· 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.
· 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.

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· 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):**

	potassium nitrate
6484-52-2	Ammonium nitrate
7439-96-5	Manganese
7440-50-8	copper

· **TSCA (Toxic Substances Control Act):**

7447-40-7	potassium chloride	ACTIVE
	potassium nitrate	ACTIVE
7704-34-9	sulfur	ACTIVE
6484-52-2	Ammonium nitrate	ACTIVE
57-13-6	Urea	ACTIVE
7732-18-5	water, distilled, conductivity or of similar purity	ACTIVE
7439-89-6	Iron	ACTIVE
7439-98-7	molybdenum	ACTIVE
7439-95-4	Magnesium	ACTIVE
7647-14-5	SODIUM CHLORIDE	ACTIVE
7439-96-5	Manganese	ACTIVE
7440-50-8	copper	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:**

	potassium nitrate
7704-34-9	sulfur
6484-52-2	Ammonium nitrate
7439-98-7	molybdenum
7439-95-4	Magnesium

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7439-96-5	Manganese
7440-50-8	copper

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

6484-52-2	Ammonium nitrate	R3
7439-96-5	Manganese	F3, R1

· **Pennsylvania Right-to-Know List:**

	potassium nitrate
7704-34-9	sulfur
6484-52-2	Ammonium nitrate
7439-98-7	molybdenum
7439-95-4	Magnesium
7439-96-5	Manganese
7440-50-8	copper

· **Pennsylvania Special Hazardous Substance List:**

6484-52-2	Ammonium nitrate	E
7439-96-5	Manganese	E
7440-50-8	copper	E

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

57-13-6	Urea	II
7439-96-5	Manganese	D
7440-50-8	copper	D

· **TLV (Threshold Limit Value)**

7439-98-7	molybdenum	A3
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· **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-determining components of labeling:**

Ammonium nitrate

molybdenum

· **Hazard statements**

Causes skin and eye irritation.

May cause respiratory irritation.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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Wear protective gloves.

If on skin: Wash with plenty of water.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

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

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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** 07/25/2025

· **Date of preparation** 07/25/2025

· **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

Oxidizing solids 3: Oxidizing solids – Category 3

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

Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3

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