



Safety Data Sheet

CREATED 6/30/2015

VERSION 3.01

REVISED 10/31/2022



1. PRODUCT AND COMPANY INFORMATION

| | |
|-----------------------------------|----------------------------------------------------------------------------------------------|
| Product Identifier: | PFI 7-11-27 Veg Plus |
| Recommended uses: | Fertilizer end-use Dry fertilizer for mixing with water for foliar and soil applications. |
| Restrictions on uses: | None |
| Manufacturer: | Plant Foods, Inc. PO Box 1089 Vero Beach, FL 32961 |
| Company Telephone/Fax | (772)567-5741 (772)770-0473 |
| Emergency Telephone Number | (800)424-9300 (CHEMTREC) |

2. HAZARDS IDENTIFICATION

| | |
|--------------------------------------|----------------------------------------------------------|
| Classification of the mixture | Hazard statements: |
| Reproductive toxicity 2 | H361 Suspected of damaging fertility or the unborn child |
| Acute Aquatic toxicity 3 | H411 Toxic to the aquatic life with long lasting effects |

Physical Hazards

None

Label elements

Hazard Pictograms



Signal word

Warning

Precautionary Statements:

| | |
|------|---------------------------------------------------------------------------|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P273 | Avoid release to the environment |
| P280 | Wear protective gloves/protective clothing/ eye protection. |

- P281 Use personal protective equipment as required.
- P308 + P313 If exposed or concerned: Get medical advice/attention.
- P391 Collect spillage.
- P405 Store locked up.
- P501 Dispose of contents/container according to local/state/federal regulations.

Other Hazards

None

3. Composition/Information on Ingredients

This product is to be considered a mixture/preparation

| Substance name | CAS# | Concentration |
|-------------------|-------------|---------------|
| Potassium nitrate | 7757-79-1 | 45%-55% |
| Copper EDTA | 14025-15-1 | <.01% |
| Boric Acid | 100043-35-3 | <1% |

**Ingredients not specifically listed are non-hazardous and considered to be confidential business information under 29CFR §1910.1200

4. FIRST AID MEASURES

Description of First Aid Measures

General Information:

In case of persisting adverse effects consult a physician.
 Never give anything by mouth to an unconscious person or a person with cramps.

In case of inhalation

Remove to fresh air and keep at rest in a position comfortable for breathing
 Get medical attention for any breathing difficulty.

In case of skin contact

Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.

In case of ingestion

Rinse mouth and drink plenty of water. Do not induce vomiting.
 Call a POISON CENTER or doctor/physical if you feel unwell.

Most important symptoms and effects, both acute and delayed

The most important know symptoms and effects are described in section 2. Further symptoms are possible

Indication of any immediate medical attention and special treatment needed

No additional information available

5. FIRE FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: Use any suitable mean for extinguishing the surrounding fire.
 Unsuitable material: None, but attention should be paid to compatibility with chemicals surrounding.

Specific hazards arising from the chemical

Thermal decomposition can lead to the escape of toxic/corrosive gases and vapors.
 Thermal decomposition products: (Nox), nitrites, phosphorous oxides, ammonia and metallic oxides.

Protective equipment and precautions for firefighters

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (self contained breathing apparatus (SCBA)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Provide adequate ventilation. Wear personal protection equipment (Section 8).

Environmental precautions

Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal and recovery.
 Unsuitable material for containment/taking up: None specified

Other Information

None

7. HANDLING AND STORAGE

Precautions for Safe Handling

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Avoid generation of dust.
- Provide adequate ventilation.
- Wear personal protective equipment.
- Wash hands thoroughly after handling.
- Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

- Keep/store only in original container
- Store in well-ventilated place
- Keep container tightly closed
- Store locked up.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Control Parameters:

| Chemical Identity: | CAS# | ACGIH Threshold | | OSHA PEL | | NIOSH REL | |
|--------------------|------------|---------------------|---------------------|----------|------|-----------|------|
| | | TWA | STEL | TWA | STEL | TWA | STEL |
| Potassium Nitrate | 7757-79-1 | NDA | NDA | NDA | NDA | NDA | NDA |
| Boric Acid | 10043-35-3 | 2 mg/m ³ | 6 mg/m ³ | NDA | NDA | NDA | NDA |

| | | | | | | | | |
|-------------|------------|-----|-----|--|-----|-----|-----|-----|
| Copper EDTA | 14025-15-1 | NDA | NDA | | NDA | NDA | NDA | NDA |
|-------------|------------|-----|-----|--|-----|-----|-----|-----|

Engineering controls

Use exhaust ventilation to keep airborne concentrations below exposure limits.

Personal Protective Equipment

| | |
|------------------------|----------------------------------------------------------------------------------------------------|
| Eye/face protection | Chemical goggles required all the time |
| Skin protection | Nitrile rubber gloves, over 0.11 mm thickness, > 480 min breakthrough time, recommended . Overall |
| Respiratory Protection | Wear respiratory protection, where airborne concentrations are expected to exceed exposure limits. |

General Hygiene Considerations

Avoid contact with eyes and skin. Wash hands thoroughly after handling. Do not eat, drink or smoke when using the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | |
|---------------------------------|-------------------|
| Appearance | solid, granular |
| Color | purple |
| Odor | odorless |
| Odor Threshold | No Data Available |
| pH value | No Data Available |
| Melting point/freezing range | No Data Available |
| Boiling temperature/ range | No Data Available |
| Flash point | No Data Available |
| Vaporization rate | No Data Available |
| Evaporation rate | No Data Available |
| Flammable solids | Not flammable |
| explosion limits (LEL, UEL) | No Data Available |
| Vapour pressure | No Data Available |
| Vapour density | No Data Available |
| Relative Density | No Data Available |
| Solubility | No Data Available |
| Partition coefficient n-octanol | No Data Available |
| Auto Ignition temperature | No Data Available |
| Decomposition temperature | No Data Available |
| Viscosity | No Data Available |
| Explosive properties | Not Explosive |
| Oxidizing properties | Not Oxidizer |
| Other Information | None |

10. STABILITY AND REACTIVITY

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical stability

Stable under normal storage and temperature conditions.

Possibility of hazardous reactions

No Data Available

Conditions to avoid

No Data Available

Incompatible materials

No Data Available

Hazardous decomposition products

Thermal decomposition products: Nitrous oxides (Nox), nitrites, phosphorus oxides, ammonia and metallic oxides.

11. TOXICOLOGICAL INFORMATION

The following information mostly refers to the major component of the product

Likely routes of exposure (inhalation, ingestion, skin and eye contact)

Eye contact, skin contact and inhalation. Exposure by ingestion is not expected to occur through normal industrial or agricultural use.

Symptoms related to the physical, chemical, and toxicological characteristics

May be irritant to the respiratory tract. May cause redness or irritation to the skin and eyes. Ingestion of large amounts may cause gastrointestinal disturbances. May cause delayed lung effects after short term exposure or thermal degradation products.

Information on toxicological effects from short and long term exposure

There is no data available for the mixture itself.

Acute toxicity

| | |
|--------------------------------|------------------------------------------------------------------------------------------------------|
| Acute oral toxicity | NDA |
| Acute Estimate for the mixture | >2000 mg/kg bw |
| Potassium nitrate | >2000 mg/kg bw |
| Boric Acid | 3765 mg/kg bw |
| Assessment/classification: | Based on available data for the ingredients of the mixture, the classification criteria are not met. |

Skin corrosion/irritation:

May cause skin irritation

Serious eye damage/eye irritation:

May cause eye irritation including redness and inflammation.

Respiratory or skin sensitization:

No data available

Carcinogenicity:

No data available

Germ cell mutagenicity

The product does not contain ingredients classified as germ cell mutagens.

Reproductive toxicity

Boric acid has been shown to adversely affect male reproduction in laboratory animals, however, male reproductive effects attributable to boron have not been demonstrated in studies of highly exposed workers.

Based on the available data for ingredients of the mixture, this product is classified and labelled as Presumed human reproductive toxicant, Category 1B, in accordance with Appendix A to 29CRF section 1910-1200.

Specific target organ toxicity - single or repeated exposure:

No relevant effect have been observed.

Aspiration hazard

Physicochemical data and toxicological information does not indicate and aspiration hazard.

12. ECOLOGICAL INFORMATION

There is no data for the mixture itself. The following information mostly refers to the major component of the product.

Ecotoxicity**Aquatic Toxicity**

Potassium nitrate

| | | |
|-----------|------------|----------------------------|
| 96-h LC50 | 1378 mg/L | <i>poecilia reticulata</i> |
| 24-h EC50 | 490 mg/L | <i>Daphnia magna</i> |
| 10d EC50 | >1700 mg/L | Several algae species |

Boric acid

| | | |
|-----------|----------------|--------------------------------------------------|
| 96-h LC50 | 74-725 mg B/L | Fish |
| 48-h EC50 | 45-1376 mg B/L | Aquatic invertebrates |
| 72-h EC50 | 40 mg B/L | Algae (<i>pseudokirchneriella subcapitata</i>) |

Persistence and degradability

The product contains mainly inorganic nitrate and phosphate salts. In aqueous solutions, these salts dissociate into their respective ions. Phosphate ions are finally incorporated into the Phosphorus cycle. Under anoxic conditions, denitrification occurs and nitrate is ultimately converted into molecular nitrogen as part of the Nitrogen cycle.

Bioaccumulative potential

Low potential for bioaccumulation based on physicochemical properties of main components.

Mobility in soil

The components of this mixture have a low potential for absorption. Portion not taken up by plants, can leach to groundwater.

Other adverse effects

Excess nitrate leaching may enrich waters leading to eutrophication.

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with all local, state, and federal regulations. This product is not listed as a dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste disposal method.

14. TRANSPORTATION INFORMATION**US DOT (49CFR PART 172)**

| | |
|-------------------------|--------------------|
| UN-No. | Non dangerous good |
| UN Proper Shipping Name | Not applicable |
| Hazard class | Not applicable |
| Packing group | Not applicable |
| Hazard label(s) | Not applicable |
| Special Marking | No |
| Special provision | No |

International Maritime Organization (IMDG Code)

| | |
|-------------------------|--------------------|
| UN-No. | Non dangerous good |
| UN Proper Shipping Name | Not applicable |
| Hazard class | Not applicable |
| Packing group | Not applicable |
| Marine pollutant | No |
| Hazard label(s) | Not applicable |
| Special Marking | No |

International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA)

| | |
|-------------------------|--------------------|
| UN-No. | Non dangerous good |
| UN Proper Shipping Name | Not applicable |
| Hazard class | Not applicable |
| Packing group | Not applicable |
| Hazard label(s) | Not applicable |
| Special Marking | No |
| Special provision | No |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Other special precautions

None

15. REGULATORY INFORMATION

US Federal - OSHA Status:

SARA Title III Rules

Section 311/312 Hazard Classes

| | |
|-----------------------|-----------------------------|
| Acute Health Hazard | No |
| Chronic Health Hazard | Yes (Toxic to reproduction) |
| Fire Hazard | No |
| Release of Pressure | No |
| Reactive Hazard | No |

Section 313 Toxic Chemicals

N511 Nitrate compounds (water dissociable; reportable only when in aqueous solution)

Section 302 Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

None ingredient is listed.

NFPA 704-2012: National Fire Protection Association

| | |
|------------|------|
| Health | 1 |
| Fire | 0 |
| Reactivity | 0 |
| Special | None |



US State Regulations

California Proposition 65
 California Code of Regulations Title 22
 (Health & Safety Code), Chapter 33

None ingredient is listed
 see <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>

State Right to Know Laws

None

Chemical Inventories

| | |
|-------------------------|----------------------------|
| United States TSCA | All ingredients are listed |
| Canada DSL | All ingredients are listed |
| European Union (EINECS) | All ingredients are listed |
| Japan (METI) | All ingredients are listed |

16. OTHER INFORMATION

Prepared by: Plant Foods, Inc.
 Preparation Date: 31-Oct-22

Key Legend Information

| | | | |
|-----------------|----------------------------------------------------------------------|---------|---------------------------------------------------------|
| N/Ap: | Not Applicable | ND: | Not Determined |
| N/R | Not Rated | NDA: | No Data Available |
| ACGI | American Conference of Govr'ntal Industrial Hygienist | TLV: | Threshold Limit Value |
| OSHA | Occupational Safety and Health Admin. | TWA: | Time Weighted Average |
| PEL: | Permissible Exposure Limit | NTP: | National Toxicology Program |
| STEL: | Short Term Exposure Limit | TSCA: | Toxic Substance Control Act |
| IARC: | International Agency for Research on Cancer | CERCLA: | Compressive Response, Compensation and Liability Act |
| SARA Title III: | Superfund Amendments and Reauthorization Act | CWA: | Clean Water Act |
| CAA: | Clean Air Act | IMO: | International Maritime Organization Shipping Info |
| RCRA: | Resource Conservation Recovery Act | | |
| IATA: | International Air Transportation Association Shipping Information | | |

However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Plant Foods, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Plant Foods, Inc. has been advised of the possibility of such damages.

OSHA STANDARD 29 CRF 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a Hazard Communication Program including training, Safety Data Sheets, and access to written records. We request that you, and it is your legal duty, make all information in this Safety Data Sheet available to your employees.