



Rooted in Science

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Product Identifier

Trade Name P-48 10-48-8

SDS Date September 27, 2018

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Use: Turf fertilizer

Uses Advised Against: To be used only where there is a recognized need. Do not exceed the appropriate dose rates.

1.3 Details of the Supplier of the Substance or Mixture

Manufacturer: Floratine Products Group, Inc.
355 East South Street
Collierville, TN 38017
+1 901-853-2898

1.4 Emergency Telephone Number

Emergency Spill Information 1(800) 535-5053 for US and Canada (INFOTRAC)
+1(352) 323-3500 for International Calls (call INFOTRAC collect)

Other Product Information: cs@floratine.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

CLP/GHS Classification (1272/2008): Not Hazardous

EU Classification (67/548/EEC): Not a dangerous substance

2.2 Label Elements

No Labeling Required

2.3 Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical Name	CAS Number / EINECS Number / REACH Reg. Number	% (w/w)	EU Classification (67/548/EEC)	CLP/GHS Classification (1272/2008)
Ammonium Phosphate	Proprietary	40-60%	Not dangerous	Not hazardous
Potassium Nitrate	7757-79-1 231-818-8	10-20%	Not dangerous	Ox. Sol. 3 (H272)

Urea	57-13-6 / 200-315-5	1-3%	Not dangerous	Not hazardous
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See Section 16 for full text of GHS and EU Classifications.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

First Aid

Eye contact: Immediately flush eye with water for at least 15 minutes while lifting the upper and lower lids. Seek medical attention if irritation persists.

Skin contact: Wash with soap and water. Get medical attention if irritation develops.

Inhalation: Remove victim to fresh air. Get medical attention if irritation persists.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If the person is alert, have them rinse their mouth with water and sip one glass of water. Call a poison center or physician for advice. Never give anything by mouth to an unconscious or drowsy person.

See Section 11 for more detailed information on health effects.

4.2 Most Important symptoms and effects, both acute and delayed: May cause mild eye irritation. Prolonged skin contact may cause irritation. Ingestion may cause gastrointestinal irritation with nausea and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed: Immediate medical attention should not be needed unless large amounts are swallowed.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media: Use water to extinguish the fire. Do not use dry chemical, carbon dioxide, halon or foam. Water can be used to cool fire exposed containers.

5.2 Special Hazards Arising from the Substance or Mixture

Unusual Fire and Explosion Hazards: Possible oxidizer. Contact with combustible materials may cause fire. During a fire, irritating and toxic gases may be generated and containers may explode. May accelerate burning if involved in a fire.

Combustion Products: Carbon and nitrogen oxides and oxygen.

5.3 Advice for Fire-Fighters: Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Wear appropriate protective equipment. Avoid direct contact with spilled material.

6.2 Environmental Precautions:

Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations.

6.3 Methods and Material for Containment and Cleaning Up:

Carefully sweep up material and place in an appropriate container for disposal or reuse. Wash spill site with water. Do not use combustible materials to clean up spill.

6.4 Reference to Other Sections:

Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

SECTION 7: HANDLING and STORAGE

7.1 Precautions for Safe Handling:

Avoid eye and skin prolonged contact. Use with adequate ventilation. Use reasonable care in handling. Do not eat, drink or smoke while using product. Wash thoroughly with soap and water after handling. Keep away from clothing or other combustible materials.

7.2 Conditions for Safe Storage, Including any Incompatibilities:

Protect containers from physical damage. Keep from freezing. Keep containers closed. Do not store near combustible materials. Empty containers retain product residues. Follow all SDS precautions in handling empty containers. Store away from food and feed. Store away from reducing agents. .

7.3 Specific end use(s):

Industrial uses: None identified

Professional uses: Turf Fertilizer

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Name	US OEL	EU IOEL	UK OEL	Biological Limit Value
Ammonium Phosphate	None Established	None Established	None Established	None Established
Potassium Nitrate	None Established	None Established	None Established	None Established
Urea	None Established	None Established	None Established	None Established

8.2 Exposure Controls:

Recommended Monitoring Procedures: None.

Appropriate Engineering Controls: Good outdoor ventilation should be adequate under normal conditions.

Personal Protective Measurers

Eye/face Protection: Chemical goggles recommended if needed to avoid eye contact.

Skin Protection: Impervious clothing is recommended if needed to avoid prolonged/repeated skin contact.

Hands: Impervious gloves are recommended if needed to avoid prolonged/repeated skin contact.

Respiratory Protection: None needed under normal use conditions with adequate ventilation. If dusts are irritating, an approved particulate respirator can be used. Use respirators in accordance with local and national regulations.

Other protection: Suitable washing facilities should be available in the work area.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties

Appearance: Blue-Green crystals

Odor: No odor.

Odor Threshold: Not applicable
Melting/Freezing Point: Not available
Flash Point: None
Lower Flammability Limit: None
Upper Flammability Limit: None
Vapor Density(Air=1): Not established
Solubility: Complete
Autoignition Temperature: None
Viscosity: Not established
Oxidizing Properties: May liberate oxygen in presence of combustible materials.
Molecular Formula: Mixture

pH: Not applicable
Boiling Point: Not applicable
Evaporation Rate: Not applicable
Vapor Pressure: Greater than 1 at 37°C

Relative Density: 1.32
Octanol/Water Partition Coefficient: Not established
Decomposition Temperature: Not applicable
Explosive Properties: None
Specific Gravity (H₂O= 1): 1.32
Molecular Weight: Mixture

9.2 Other Information: None available

SECTION 10: STABILITY and REACTIVITY

10.1 Reactivity: Not reactive under normal conditions.

10.2 Chemical Stability: Stable.

10.3 Possibility of Hazardous Reactions: May liberate oxygen if in prolonged contact with combustible materials.

10.4 Conditions to Avoid: Corrosive to aluminum and iron.

10.5 Incompatible Materials: Avoid contact with combustible materials and reducing agents. .

10.6 Hazardous Decomposition Products: Decomposition may produce carbon and nitrogen oxides and oxygen. .

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:

Eye Contact: May cause irritation with redness and tearing.

Skin contact: Prolonged skin contact may cause irritation.

Inhalation: Excessive inhalation of mists may cause upper respiratory tract irritation.

Ingestion: Swallowing may cause gastrointestinal effects including nausea and diarrhea

Acute toxicity: No acute toxicity data available for the product.

Ammonium Phosphate: Oral rat LD50 5,750 mg/kg; Dermal rat LD50 >7,940 mg/kg

Potassium Nitrate: Oral rat LD50 3,015 mg/kg, Dermal rabbit >5000 mg/kg

Urea: Oral rat LD50: 8471 mg/kg

Skin corrosion/irritation: Ammonium Phosphate is slightly irritating to human skin.

Eye damage/ irritation: Ammonium Phosphate is slightly irritating to human eyes. Potassium Nitrate is not irritating to rabbit eyes.

Respiratory Irritation: No data available. Expected to cause only temporary irritation.

Respiratory Sensitization: No data available.

Skin Sensitization: No data available. Not expected to cause skin sensitization.

Germ Cell Mutagenicity: Potassium nitrate was negative in an in vitro mammalian chromosome aberration test and an in vitro mammalian cell gene mutation assay.

Carcinogenicity: None of the components of this product are listed as carcinogens by IARC or the EU Dangerous Substances Directive.

Reproductive Toxicity: In a reproductive/developmental study, rats were administered potassium nitrate for 28 days for males and 53 days for females. No adverse effects were seen on reproduction/developmental toxicity endpoints. NOEL: 1500 mg/kg

Specific Target Organ Toxicity:

Single Exposure: No data available

Repeat Exposure: No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Potassium Nitrate: 24 hr EC50 daphnia magna 490 mg/L

Ammonium Phosphate: 96 hr LC50 Oncorhynchus mykiss >85.9 mg/L; 75 hr LC50 daphnia magna 1790 mg/L

12.2 Persistence and degradability: Biodegradation is not applicable to inorganic substances such potassium nitrate and ammonium phosphate.

12.3 Bioaccumulative Potential: No data available. Not expected to be bioaccumulative.

12.4 Mobility in Soil: In the soil, product follows natural cycle to provide plant nutrients.

12.5 Results of PVT and vPvB assessment: Not required.

12.6 Other Adverse Effects: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Dispose in accordance with local/ and national regulations. Not considered hazardous waste according to EU regulations.

SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	None	Not Regulated			

14.6 Special Precautions for User: None

14.7 Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Not determined.

SECTION 15: REGULATORY INFORMATION**US Regulations**

CERCLA Section 103: The normal application of fertilizers is exempt from CERCLA reporting. If an accidental release occurs, contact Floratine Products Group for information.

SARA Hazard Category (311/312): Not hazardous

SARA 313: Products used in routine agricultural operations and fertilizers held for resale by retailers is excluded from SARA 313 reporting. Contact Floratine Products Group for additional information.

California Proposition 65: This product contains the following substances known to the State of California to cause cancer and/or reproductive harm (birth defects): None known.

Canada:

Canadian WHMIS Classification: Not a controlled product

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

EU Regulations:

This product is sold as an EC Fertilizer in accordance with Directive 2003/2003.

SECTION 16: OTHER INFORMATION**EU Classes and Risk Phrases for Reference (See Sections 2 and 3)**

None.

CLP/GHS Classification and H Phrases for Reference (See Section 3)

Ox. Sol. 3 Oxidizing Solid Category 3

H272 May intensify fire; oxidizer

This safety data sheet provides health and safety information. The product is to be used in applications consistent with best farming practice. Individuals handling this product should be informed under COSHH of the recommended safety precautions and should have access to this information. The product information data sheet is to the best of Floratine's knowledge correct as at the date of publication. Neither Floratine, importer or local supplier accepts liability for any loss or damage resulting from reliance on this information. Further information on this product may be obtained from the supplier whose name, address and telephone number will be found on the product container. The information provided herein is offered solely for your consideration, investigation and verification. This information herein is provided by Floratine in good faith as accurate at the time of writing but without guarantee. This information includes information which has been generated by other parties and provided to Floratine and which Floratine has not independently verified. The information provided herein relates only to the specific product designated and may not be valid if the product is used in combination with any other materials or in any process