



Safety Data Sheet

1 IDENTIFICATION

Product Identifier:
Product Name: PKPro® Nutriboosters® 0-36-23
Product Code: 1424270
Synonyms: None
Recommended Use: Fertilizer
Use Restrictions: No information available
Supplier Information: ArborSystems, Inc. d/b/a ArborSystems
 PO Box 34645
 Omaha, NE 68134 USA
 Toll Free: 800.698.4641
 Phone: 402.339.4459
 Fax: 402.339.5011
 Email: mike@arborsystems.com
 Website: www.arborsystems.com
Emergency Phone Number: 1.800.222.1222 (Medical)

2 HAZARDS IDENTIFICATION

Classification:
 Acute toxicity-Oral Category 2
 Acute toxicity-Dermal Category 3
GHS Label Elements, including Precautionary Statements:
Signal Word: Danger
Hazards Statements: Fatal if swallowed. Toxic in contact with skin.



Appearance: Clear to slightly cloudy **Physical state:** Liquid **Odor:** No information available

Precautionary Statements:
Prevention: Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing.
Response: Specific treatment (see supplemental first aid instructions on this label).
Skin: IF ON SKIN: Wash with plenty of water and soap. Call a POISON CENTER or doctor if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse.
Ingestion: IF SWALLOWED: immediately call a POISON CENTER or doctor. Rinse mouth.
Storage: Store locked up.
Disposal: Dispose of contents/container to an approved waste disposal plant.
Other information: Harmful to aquatic life with long lasting effects. Very toxic to aquatic life.
Unknown Acute Toxicity: 62% of the mixture consists of ingredient(s) of unknown toxicity. 26% of the mixture consists of ingredient(s) of unknown acute oral toxicity. 26% of the mixture consists of ingredient(s) of unknown acute dermal toxicity. 62% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas). 62% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor). 62% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

3 COMPOSITION / INFORMATION ON INGREDIENTS

Substance: Not applicable.

Chemical Name	CAS Number	Percent	HMIRA* Registry No.	Date HMIRA filed and date exemption granted (if applicable)
Phosphorus	7723-14-0	36	-	-

*Hazardous Material Information Review Act.

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4 FIRST-AID MEASURES

General Advice: Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Inhalation: Remove to fresh air.

Eye Contact: Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.

Skin Contact: Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion: Get immediate medical advice/attention. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.

Self-protection of the first aider: Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most Important Symptoms and Effects, both acute and delayed: No information available.

Indication of any immediate medical attention and special treatment needed:

Note to Physicians: Treat symptomatically.

5 FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from this Chemical: No information available.

Hazardous Combustion Products: Carbon oxides.

Explosion Data; Sensitivity to Mechanical Impact: None. **Sensitivity to Static Discharge:** None.

Special Protective Equipment for Firefighters: Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal Precautions: Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

Other Information: Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up:

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for clean up: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7 HANDLING AND STORAGE

Precautions for Safe Handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities:

Storage Conditions: Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters - Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	
Phosphorus 7723-14-0	-	(vacated) TWA: 0.1 mg/m ³ Phosphorus (yellow)		
Chemical name	Alberta	British Columbia	Ontario TWAEV	Quebec
Phosphorus 7723-14-0	TWA: 0.1 mg/m ³			TWA: 0.1 mg/m ³

Other Exposure Guidelines: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls:

Engineering controls: Showers. Eyewash stations. Ventilation systems.

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Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear safety glasses with side shields (or goggles).

Hand protection: Wear suitable gloves. Impervious gloves.

Skin and body protection: Wear suitable protective clothing. Long-sleeved clothing. Chemical resistant apron.

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations: Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Handle in accordance with good industrial hygiene and safety practice.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Liquid
Appearance	Clear to slightly cloudy
Odor	No information available
Color	No information available
Odor Threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	UNKNOWN		
Melting / freezing point	No data available	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	No data available	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air		None known	
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Relative density	1.523		
Water Solubility	Very soluble		
Solubility(ies)	No data available	None known	
Partition coefficient: n-octanol/water	Not available		
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	

Other Information

Explosive properties	No information available
Oxidizing properties	No information available
Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk Density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

10 STABILITY AND REACTIVITY

Reactivity: No information available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: None under normal processing.

Hazardous Polymerization: Hazardous polymerization does not occur.

Conditions to Avoid: None known based on information supplied.

Incompatible Materials: None known based on information supplied.

Hazardous Decomposition Products: Carbon oxides.

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11 TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure – Product Information:

Inhalation: Specific test data for the substance or mixture is not available.

Eye Contact: Specific test data for the substance or mixture is not available.

Skin Contact: Specific test data for the substance or mixture is not available. Toxic in contact with skin. (based on components).

Ingestion: Specific test data for the substance or mixture is not available. Fatal if swallowed. (based on components).

Information on Toxicological Effects:

Symptoms: No information available.

Numerical Measures of Toxicity – Acute Toxicity:

The following values are calculated based on Chapter 3.1 of the GHS document:

ATEmix (oral): 6.23 mg/kg

ATEmix (dermal): 206.00 mg/kg

Unknown Acute Toxicity: 62% of the mixture consists of ingredient(s) of unknown toxicity. 26% of the mixture consists of ingredient(s) of unknown acute oral toxicity. 26% of the mixture consists of ingredient(s) of unknown acute dermal toxicity. 62% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas). 62% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor). 62% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphorus	= 3030 µg/kg (Rat)	= 100 mg/kg (Rat)	= 4.3 mg/L (Rat) 1 h

Delayed and Immediate Effects as well as Chronic Effects from Short- and Long-term Exposure:

Skin corrosion/irritation: No information available.

Serious eye damage/eye irritation: No information available.

Respiratory or Skin Sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Reproductive Toxicity: No information available.

STOT-Single Exposure: No information available.

STOT-Repeated Exposure: No information available.

Aspiration Hazard: No information available.

12 ECOLOGICAL INFORMATION (NON-MANDATORY)

Exotoxicity:

Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical Name / CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	<i>Daphnia magna</i> (water flea)
Phosphorus	-	96h LC50: 0.0017 - 0.0035 mg/L (Lepomis macrochirus) 96h LC50: 0.001 - 0.004 mg/L (Lepomis macrochirus) 96h LC50: > 100 mg/L (Brachydanio rerio) 96h LC50: 0.015 - 0.032 mg/L (Oncorhynchus mykiss) 96h LC50: 0.011 - 0.028 mg/L (Pimephales promelas)	-	48h EC50: 0.025 - 0.037 mg/L 48h EC50: = 0.03 mg/L -

Persistence and Degradability: No information available.

Bioaccumulation: There is no data for this product.

Mobility: No information available.

Other Adverse Effects: No information available.

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13 DISPOSAL CONSIDERATIONS (NON-MANDATORY)

Waste Treatment Methods:

Waste from Residues/Unused Products: Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated Packaging: Do not reuse empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste
Phosphorus 7723-14-0	Toxic Ignitable Reactive

14 TRANSPORT INFORMATION (NON-MANDATORY)

DOT: NOT REGULATED

Proper Shipping Name: NON- REGULATED

Hazard Class: N/A

TGD: Not regulated.

Marine pollutant: This product contains a chemical which is listed as a severe marine pollutant according to TDG.

MEX: Not regulated.

ICAO: Not regulated.

IATA: Not regulated.

Proper Shipping Name: NON- REGULATED

Hazard Class: N/A

IMDG/IMO: Not regulated.

Hazard Class: N/A

Marine pollutant: This product contains a chemical which is listed as a severe marine pollutant according to IMDG/IMO.

RID: Not regulated.

ADR: Not regulated.

ADN: Not regulated.

15 REGULATORY INFORMATION (NON-MANDATORY)

Safety, health and environmental regulations/legislation specific for the substance or mixture.

International Regulations:

Ozone Depleting Substances (ODS): Not Applicable

Persistent Organic Pollutants: Not Applicable

Export Notification Requirements: Not Applicable

International Inventories:

TSCA, DSL/NDL, EINECS/ELINCS, ENCS, KECL, PICCS and AICS: Contact supplier for inventory compliance status.

TSCA: United States Toxic Substances Control Act Section 8(b) Inventory; **DSL/NDL:** Canadian Domestic Substances List/Non-Domestic Substances List; **EINECS/ELINCS:** European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances; **ENCS:** Japan Existing and New Chemical Substances; **KECL:** Korean Existing and Evaluated Chemical Substances; **PICCS:** Philippines Inventory of Chemicals and Chemical Substances; and **AICS:** Australian Inventory of Chemical Substances.

U.S. Federal Regulations:

SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 ("SARA"). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	CAS-No	Percent	SARA 313 - Threshold Values %
Phosphorus - 7723-14-0	7723-14-0	36	1.0

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

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CWA (Clean Water Act): This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phosphorus 7723-14-0	1 lb			X

CERCLA: This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Phosphorus 7723-14-0	1 lb	1 lb	RQ 1 lb final RQ RQ 0.454 kg final RQ

U.S. State Regulations:

California Proposition 65: This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Phosphorus 7723-14-0	X	X	X	X	X

16 OTHER INFORMATION

NFPA:

Health Hazards: 3

Flammability: 0

Instability: 0

Physical and Chemical Hazards-Personal Protection: X

HMIS:

Health Hazards: 3

Flammability: 0

Physical Hazard: 0

Physical and Chemical Hazards-Personal Protection: X

SDS Information:

Date Prepared: 11/02/2017

Version: 2

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DISCLAIMER

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