



Safety Data Sheet

NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY	
0	Least				Limited Quantity Exception for Packaging of 1 gallon or less, larger quantities are Corrosive; see Section 14 for additional information.
1	Slight	3	Health		
2	Moderate	0	Flammability		
3	High	0	Reactivity		
4	Severe				

SECTION 1: IDENTIFICATION	
Product Name: Buffer Solution 0-10-0 EPA Registration #: Exempt Product ID/Unity #: 10005798, 10015021 Common Name: pH buffering solution Chemical Description: Phosphoric acid based pH buffer solution Recommended Uses: Fertilizer product – See product label for full directions for use. Restrictions for Use: See product label for any restrictions on use.	MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs) Non-Emergency Business Inquiries: 1-855-494-6343 Mon – Fri 8am – 5pm (Central Standard Time)
Manufactured For: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	
FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL: CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION	
EMERGENCY OVERVIEW: Colorless to light yellow liquid with no to very faint odor. Causes serious eye and skin damage. Causes burning if swallowed.	
POTENTIAL HEALTH EFFECTS: Eyes: Causes severe eye damage with a burning sensation. Skin: Causes severe skin irritation. Inhalation: May cause irritation of the upper respiratory tract. Ingestion: Causes burning irritation of the mouth and esophagus. Preexisting Conditions: Preexisting respiratory and skin conditions may be aggravated by exposure to mist. Chronic Health Effects: None known	
Carcinogenicity	NTP: Not listed IARC: Not listed OSHA: Not listed
OSHA HCS 2012 CLASSIFICATION: Skin Irritation/Corrosion - Category 1; Eye Irritation/Corrosion – Category 1; Reproductive Toxicity Category 2	
SIGNAL WORD: DANGER	
HAZARD STATEMENTS: Causes severe skin burns and eye damage. Suspected of damaging fertility or the unborn child.	
	
Percent of product with unknown toxicity: 14%	
PRECAUTIONARY STATEMENTS: Prevention: Do not breathe dust, mist. Wash hands thoroughly after use. Wear protective gloves, protective clothing, eye protection, and face protection. See Section 8 for additional information. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.	

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Response:	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice. If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice. If exposed or concerned: Get medical attention.
Storage:	Store in a secured (locked) area.
Disposal:	Dispose of contents/container in accordance with Federal, state and local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% (wt)	CAS Reg. #
Phosphoric acid	10.0 – 20.0%	7664-38-2
Nonylphenol and its Ethoxylates	3.0 – 5.0%	25154-52-3

*Ingredients not specifically listed are non-hazardous and/or are considered to be confidential business information under 29 CFR 1910.1200(i).

See Section 8 for exposure limits.

SECTION 4: FIRST AID MEASURES

Inhalation:	Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
Ingestion:	Seek medical attention or call a poison control center immediately for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Eyes:	Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately.
Skin:	Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use water spray, alcohol foam, dry chemical, or carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Water jet

Special Fire Fighting Procedures: Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind.

Hazardous Combustion Products: Toxic gases may be formed in a fire situation. Carbon monoxide and other asphyxiates may form as well.

Unusual Fire and Explosion Hazards: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Environmental Precautions: Do not allow spilled product to enter sewers or waterways. This material is considered to be a water pollutant.

Methods for Containment: Contain spilled liquid by diking area with sand or earth.

Methods for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite or other appropriate material. Vacuum, scoop or sweep up material and place in a container for disposal. Do not place spilled material back in original container.

Other Information: None known

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SECTION 7: HANDLING AND STORAGE

Handling: Ensure adequate ventilation. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. Product thickens when cold.

Storage: Store in cool, dry areas away from children, feed and food products and sources of heat or flame. Keep storage area locked when not in use. Protect from freezing. Maintain product at temperatures between 32°F and 110°F. Protect package from physical damage.

Minimum Storage Temperature: 32°F

Other Precautions: Consult Federal, state and local laws and regulations pertaining to storage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV	NIOSH REL
Phosphoric acid (CAS #7664-38-2)	1 mg/m ³ TWA	1 mg/m ³ TWA; 3 mg/m ³ STEL	1 mg/m ³ TWA 1000 mg/m ³ IDLH

Respiratory Protection: Inhalation of this product may cause irritation of the respiratory tract. When handling this product in areas which are not ventilated or where exposure limits are exceeded, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against acid gas.

Engineering Controls: **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

Protective Gloves: Wear chemical resistant gloves to prevent skin contact.

Eye Protection: Wear chemical goggles or safety glasses and full face shield. Contact lenses are not protective eye devices. An emergency eyewash or water supply should be readily accessible to the work area.

Other Protective Clothing or Equipment: Wear long-sleeve shirt, long pants and chemically resistant shoes plus socks to prevent skin contact.

Work/Hygienic Practices: Never eat, drink, nor use tobacco in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Specific Gravity (H₂O=1):	1.09 (typical)
Vapor Pressure (mm Hg):	Not determined	Density (lbs/gallon):	9.01 lbs/gallons (typical)
Vapor Density (Air=1):	Not determined	Freezing Point:	<32°F (<0°C)(estimated)
Solubility in Water (wt %):	100%	Boiling Point/Range:	<212°F (<100°C)(est.)
Viscosity:	Not determined	pH:	1.0 – 2.0
Appearance and odor:	Colorless to light yellow liquid with no to very faint odor	Flash Point:	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Reacts violently with strong alkaline substances.

Chemical Stability: This product is stable at ambient temperature and pressure, under normal storage and handling conditions.

Possibility of Hazardous Reactions: Will not occur

Conditions to Avoid: Do not mix with other chemicals.

Incompatible Materials: Incompatible with bases. This product may react with reducing agents.

Hazardous Decomposition Products: Toxic gases may be formed in a fire situation. Carbon monoxide and other asphyxiates may form as well.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects: Causes severe eye irritation/damage.
Skin Effects: Causes severe skin irritation/damage. LD50 is >5,000 mg/kg.
Acute Inhalation Effects: May cause burning sensation of the upper respiratory tract. LC50 has not been determined.
Acute Oral Effects: Estimated LD50 is > 5,000 mg/kg. Causes burns to the digestive tract.
Specific Target Organ Toxicity: None known

CHRONIC TOXICITY

Chronic Effects: Prolonged inhalation may be harmful.
Carcinogenicity: No component is known to have a carcinogenic effect.
Mutagenicity: No component is known to have a mutagenic effect.
Teratogenicity: This product contains a component which is suspected of damaging fertility or the unborn child.
Reproductive Toxicity: This product contains a component which is suspected of damaging fertility or the unborn child.

POTENTIAL HEALTH EFFECTS:

Eyes: Causes severe eye damage with a burning sensation.
Skin: Causes severe skin irritation.
Inhalation: May cause irritation of the upper respiratory tract.
Ingestion: Causes burning irritation of the mouth and esophagus.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Very toxic to aquatic life. Toxic to aquatic life with long-term effects. Accumulation in aquatic organisms is expected. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

ECOTOXICITY DATA:

Fish Acute and Prolonged Toxicity: Estimated 96 hr LC50 is 10.04 mg/l
Aquatic Invertebrate Acute Toxicity: Estimated 48 hr EC50 for Daphnia is 4.1 mg/l
Aquatic Plant Toxicity: Not determined
Bird Acute and Prolonged Toxicity: Not determined
Honeybee Toxicity: Not determined

ENVIRONMENTAL EFFECTS:

Soil Absorption/Mobility: Not determined
Persistence and degradability: Not determined
Bioaccumulative Potential: Not determined
Other adverse effects: Not determined

SECTION 13: DISPOSAL CONSIDERATIONS

Waste: Dispose of in accordance with applicable Federal, state and local laws and regulations.
Container: Triple rinse and recycle the container or dispose of in accordance with Federal, state and local laws and regulations.
RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste. If product is disposed of as purchased – D002.

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SECTION 14: TRANSPORT INFORMATION	
UN1805, Phosphoric acid solution, 8, PG III	
DOT: (Ground)	Note: The 4 x 1 gallon package size qualifies for Limited Quantity classification and is for domestic surface/ground shipments only. Limited Quantity shipments are excepted from the shipping paper, proper shipping name and identification number package marking requirements and placarding per 49 CFR 172.200(b)(3), 172.315(a) and 172.500(b)(3) .
IMDG: (Sea)	UN1805, Phosphoric acid solution, 8, PG III
IATA: (Air)	UN1805, Phosphoric acid solution, 8, PG III
TDG: (Canada)	Not determined

SECTION 15: REGULATORY INFORMATION	
TSCA Inventory: All components are listed or exempt from listing on the TSCA inventory.	
SARA Title III Information:	
Section 302 - Extremely hazardous substances: None listed	
Section 311/312 - Hazard Categories: Immediate (Acute), Delayed (Chronic)	
Section 313 - The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:	
None listed	
CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):	
Phosphoric acid (CAS # 7664-38-2) has an RQ of 5,000 lbs.	
California Proposition 65: This product does not contain any chemicals known to the state of California to cause cancer and/or reproductive harm.	
U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):	
Chemical Name	CAS # State(s)
Phosphoric acid	7664-38-2 MA, PA, RI
Nonylphenol and its Ethoxylates	25154-52-3 MA, PA
Canadian Domestic Substances List: All components are listed on the DSL.	
WHMIS Classification: This product is not approved for use in Canada. WHMIS classification is not determined.	

SECTION 16: OTHER	
Disclaimer: The information presented herein is based on available data from reliable sources and is correct to the best of WinField Solutions' knowledge. WinField Solutions, LLC makes no warranty, express nor implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.	
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