

MATERIAL SAFETY DATA SHEET

ADJUST

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Issue Date: 01/06

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product

ADJUST

CA Reg. No. 17545-50024-AA

Common Name: Nutrient-Buffer.

Chemical Description: Citric acid nutrient-buffer.

TSCA/CAS No.: This product is a mixture — there is no specific CAS No.

Manufactured For

Monterey AgResources

P. O. Box 35000

Fresno, CA 93745

Emergency Phone Numbers

Emergency Telephone: DAYS: (559) 499-2100 EVES: (559) 994-9144

CHEMTREC (24-Hour Emergency Number): (800) 424-9300

EPA National Response Center: (800) 424-8802

SECTION 2. HAZARDOUS INGREDIENTS

CHEMICAL	CAS NO.	%	TLV OR PEL	RQ (lbs)
Potassium hydroxide	1310-58-3	1.0	*N.A.	1,000
Potassium nitrate	7757-79-1	9.5	N.A.	*N.P.

* N.A. – Not available.

* N.P. – Not pertinent.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Clear liquid with a slight citrus odor. Mild irritant to eyes and skin. If ingested may cause stomach cramps and/or nausea. Contain any liquid runoff. Not D.O.T. regulated.

HEALTH: 1 REACTIVITY: 1 FLAMMABILITY: 0 ENVIRONMENT: 1
(0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

SECTION 4. FIRST AID

Eyes: Flush with plenty of water. Call a physician if eye irritation persists.

Skin: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. See a physician if skin becomes irritated.

Ingestion: If conscious and alert, drink water or milk to dilute, then induce vomiting. Call a physician or Poison Control Center immediately.

Inhalation: Move to fresh air. If breathing becomes difficult, call a physician.

SECTION 5. FIRE AND EXPLOSION HAZARDS

Flash Point:	>200°F.
Test Method:	ASTM D-56.
LEL Flammable Limits:	Not pertinent.
UEL Flammable Limits:	Not pertinent.
Autoignition Temperature:	Not pertinent.
Flammability Classification:	Noncombustible.
Known Hazardous Products of Combustion:	None.
Properties that Initiate/Contribute to Intensity of Fire:	None.
Reactions that Release Flammable Gases or Vapors:	Not known.
Potential For Release of Flammable Vapors:	None.
Unusual Fire & Explosion Hazards:	None.
Extinguishing Media:	Not pertinent.
Special Firefighting Procedures:	Wear positive pressure, self-contained breathing apparatus and goggles. Contain any liquid runoff.

SECTION 6. SPILLS AND LEAKS

Containment:	Prevent product spillage from entering drinking water supplies or streams.
Clean Up:	Collect liquid or absorb onto absorbent material and package for disposal.
Evacuation:	Not necessary.

SECTION 7. STORAGE AND DISPOSAL

Storage:	Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40°F. Do not store near food or feeds. Do not stack pallets more than two (2) high.
Transfer Equipment:	Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.
Work/Hygienic Practices:	Keep out of reach of children. Avoid contact with eyes, skin and clothing. Avoid inhalation of spray mists. Wash thoroughly with water after handling.

SECTION 8. PERSONAL PROTECTIVE EQUIPMENT

Eyes:	Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, do not wear contact lenses when handling.
Skin:	Impervious gloves and clothes.
Respiratory:	Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/mist respirator (such as 3M #8710).
Ventilation:	Recommended but no TLV established.

SECTION 9. PHYSICAL AND CHEMICAL DATA

Appearance:	Clear liquid.
Odor:	Slightly citrus odor.
pH:	Not available.
Vapor Pressure:	760 mm Hg.
Vapor Density (Air=1):	<1.0
Boiling Point:	100°C (212°F)
Freezing Point:	Not available.
Water Solubility:	Completely miscible.
Density:	10.1 lbs./gal.
Evaporation Rate:	Same as water.
Viscosity:	70 centipoises.
% Volatile:	Not available.
Octanol/Water Partition Coefficient:	Not available.
Saturated Vapor Concentration:	Not available.

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions To Avoid:	None known.
Incompatibility:	Avoid contact with strong alkalis.
Hazardous Decomposition Products:	None known.
Hazardous Polymerization:	Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTSAcute Effects:

Eyes:	Mild irritant. May cause redness.
Skin:	Mild irritant, especially from prolonged exposure. May cause redness.
Ingestion:	May cause stomach cramps and/or nausea.
Inhalation:	None expected but inhalation of aerosol mist may cause mild irritation of nasal mucous membranes.

Subchronic Effects: None known.

Chronic Effects: None known.

SECTION 12. ECOLOGICAL INFORMATION

Algal/Lemna Growth Inhibition:	Not known.
Toxicity to Fish and Invertebrates:	Not known.
Toxicity to Plants:	Not known.
Toxicity in Birds:	Not known.

SECTION 13. DISPOSAL

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents according to state and local regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal. Do not discharge.

SECTION 14. TRANSPORTATION

D.O.T.:	Not D.O.T. Regulated.
Other Shipping Description:	Adhesives, Adjuvants, Spreaders or Stickers, Liquid. NMFC Item 4612, LTL Class 60

SECTION 15. REGULATORY INFORMATION

CERCLA: Potassium hydroxide, with a Reportable Quantity of 1,000 lbs., is listed as a priority pollutant under the Clean Water Act and, as such, falls under the CERCLA spill reporting requirements of 40 CFR 302.

SARA TITLE III, Section 313 Toxic Chemicals: None.

PROPOSITION 65 (CA): None.

SECTION 16. OTHER

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