

SAFETY DATA SHEET



SECTION 1: IDENTIFICATION

1.1. Company Information	KALO, Inc., 13200 Metcalf Ave., Ste. 250, Overland Park, KS 66213
1.2. Phone Numbers	800-255-5196 / 913-491-9146 FAX
1.3. Website	www.kalo.com
1.4. Product Identity	RhizoPro
1.5. Reference/Item Number	RPRO-GB
1.6. Intended Use	Inoculant
1.7. Application Method	Refer to package label.
1.8. 24 HOUR EMERGENCY NUMBER/CHEMTREC (USA)	1-800-424-9300
1.9. POISON CONTROL CENTER (USA)	1-800-222-1222

SECTION 2: HAZARDS IDENTIFICATION

This product does not meet the regulatory definition of a hazardous chemical under 29 CFR 1910.1200. However, good industrial hygiene practices should be used in the manufacture and handling of the product.

2.1. Signal Word:	No GHS signal word required.
2.2. Hazard Statements:	No GHS hazard statements.
2.3. Prevention:	No GHS prevention statements.
2.4. Response:	No GHS response statements.
2.5. Storage:	No GHS storage statements. See Section 7 of this SDS, or package label, for storage information.
2.6. Disposal:	No GHS disposal statements. See Section 13 of this SDS, or package label, for disposal information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7). The chemical identities and exact weight percentages are being withheld as a Trade Secret.

3.1. Ingredient/Chemical Designations:	Liquid inoculant containing live culture of nitrogen-fixing Rhizobium bacteria.
3.2. CAS No.:	Proprietary
3.3. Notes:	There are no known health effects caused by Rhizobium bacteria contained in this product.

SECTION 4: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

4.1. General:	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
4.2. Inhalation:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
4.3. Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call poison control center or doctor for treatment advice.
4.4. Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
4.5. Ingestion:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not give anything to an unconscious person.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

4.6. Emergency Overview:	Liquid inoculant products contain live cultures of nitrogen fixing rhizobium bacteria. No adverse symptoms or effects anticipated under normal handling conditions. Treat symptomatically.
4.7. Eyes:	May cause mild eye irritation including redness, itching and tearing.

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media:	Alcohol resistant foam, CO ₂ , powder, or water spray. Do not use water jet.
5.2. Special Hazards Arising From the Substance/Mixture:	Thermal decomposition may include toxic and irritating gases.
5.3. Advice For Firefighters:	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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment, Emergency Procedures:	Keep all sources of ignition away from spill/release. In case of a major spill or spillage in a confined space evacuate the area and check vapor levels. Take the personal protective measures listed in Section 8.
6.2. Environmental Precautions:	Do not allow spills to enter drains or water courses.
6.3. Methods and Material For Containment and Cleaning Up:	Ventilate the area and avoid breathing vapors. Contain and absorb spillage with non-combustible materials (e.g. sand/earth/vermiculite). Vacuum, scoop or sweep up material and place in a container for disposal. Do not place spilled material back in original container. Dispose of according to the Waste Regulations (see Section 13).

SECTION 7: HANDLING AND STORAGE

7.1. Precautions For Safe Handling:	Do not get in eyes, on skin, or on clothing. Do not breathe vapors or mists. Keep container closed when not in use. Ensure adequate ventilation during handling and use. Use good personal hygiene practices. Wash hands before eating, drinking, smoking. Remove contaminated clothing and wash before reuse. Have eyewash accessible to use in handling area. Immediately clean up spills that occur during handling.
7.2. Conditions For Safe Storage:	Store in tightly closed original containers in a cool, well-ventilated dry area, away from excessive heat and incompatibles. Store in a secured area away from children, feed and food products. Minimum Storage Temp: 40°F (40°C) Maximum Storage Temp: 77°F (25°C)
7.3. Incompatible Materials:	Some seed-applied chemicals, including fungicides, may be harmful to the bacteria in this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS/EXPOSURE

EXPOSURE LIMITS FOR NUISANCE PARTICULATE: ACGIH – TWA 10mg/m³ (liquefied mist)

EXPOSURE CONTROLS

8.2. Respiratory:	For most well-ventilated conditions, no respiratory protection should be needed. If airborne concentrations exceed permissible levels or if a pre-existing respiratory condition exists, use a NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.
8.3. Eyes:	Wear safety eyewear (e.g. safety spectacles/goggles/visors) to protect against the splash of liquids. Contact lenses are not protective eye devices.
8.4. Skin:	Wear chemically protective gloves. Wear long-sleeve shirt, long pants and shoes plus socks to prevent skin contact. All parts of the body should be washed after contact
8.5. Engineering Controls:	Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred. If these are not sufficient to maintain concentrations of particulates, and any vapor below occupational exposure limits, suitable respiratory protection must be worn.
8.6. Other Work 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.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. The physical properties and reported values are typical values based on the material tested but may vary from sample to sample. Thus, typical values should not be construed as a guaranteed analysis of any specific lot/batch or specification item.

Appearance:	Yellow to Brown Liquid	Initial Boiling Point/Range:	216°F (102°C)
Odor:	Mild	Melting Point/Range:	Not Measured
Odor Threshold:	Not Measured	Flammability (Solid, Gas):	Not Applicable
pH:	6.5 - 7.4	Upper Flammability/Explosive Limits:	Not Measured
Specific Gravity:	Not Measured	Lower Flammability/Explosive Limits:	Not Measured
Flashpoint and Method:	Not Applicable	Decomposition Temperature:	Not Measured
Solubility in Water:	Not Measured	Auto-Ignition Temperature:	Not Measured
Viscosity (dynamic):	Not Measured	Volatility:	Not Measured
Viscosity (kinematic):	Not Measured	Molecular Weight:	Not Measured
VOC%:	Not Measured	Oxidizing Properties:	Not Measured
Vapor Pressure (Pa):	Not Measured	Partition Co-Efficient n-octanol/water (Log Pow):	Not Measured
Vapor Density (air=1):	Not Measured	Evaporation Rate (Butyl Acetate=1):	Not Measured
Density (water=1):	Not Measured	Surface Tension:	Not Measured
Density (liquid):	Not Measured	Particle Size:	Not Measured
Freezing Point:	25°F (-4°C)	Other:	No other relevant information.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:	None known.
10.2. Chemical Stability:	Stable under normal ambient and anticipated conditions of use.
10.3. Possibility of Hazardous Reactions:	Will not occur.
10.4. Conditions To Avoid:	Extended exposure to high temperatures can cause decomposition. Avoid all possible sources of ignition.
10.5. Incompatible Materials:	Some seed-applied chemicals, including fungicides, may be harmful to the bacteria in this product. See product label for further information on the use of fungicides or other chemicals in conjunction with seed treatment.
10.6. Hazardous Decomposition Products:	Thermal decomposition may include toxic and irritating gases.

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SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY ESTIMATE (ATE): NOTE: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE.

11.1. Ingredients:	Liquid inoculant containing live culture of nitrogen-fixing Rhizobium bacteria.
11.2. Oral, LD50mg/kg:	>5,000.00
11.3. Skin, LD50mg/kg:	>5,000.00
11.4. Inhalation Vapor, LC50, mg/L/4hr:	No Data Available
11.5. Inhalation Dust/Mist, LC50, mg/L/4hr:	No Data Available
11.6. Inhalation Gas, LC50, ppm:	No Data Available

CARCINOGEN: This product contains no ingredients (at greater than 0.1%) that are suspected of being or known to be a carcinogen under OSHA, NTP or IARC.

CLASSIFICATION	HAZARD DESCRIPTION	CATEGORY
Acute Toxicity (mouth):	Not Applicable	--
Acute Toxicity (skin):	Not Applicable	--
Acute Toxicity (inhalation):	Not Applicable	--
Skin Corrosion/Irritation:	Not Applicable	--
Eye Damage/Irritation:	Not Applicable	--
Sensitization (respiratory):	Not Applicable	--
Sensitization (skin):	Not Applicable	--
Germ Toxicity:	Not Applicable	--
Carcinogenicity:	Not Applicable	--
Reproductive Toxicity:	Not Applicable	--
Specific Target Organ Systemic Toxicity-Single Exposure:	Not Applicable	--
Specific Target Organ Systemic Toxicity-Repeated Exposure:	Not Applicable	--
Aspiration Hazard:	Not Applicable	--

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity:	This product contains bacterial strain(s) that occur(s) naturally in soil.
12.2. Aquatic Ecotoxicity:	Aquatic ecotoxicity studies have not been conducted on this preparation.
12.3. Persistence and Degradability:	There is no data available on the preparation itself.
12.4. Bioaccumulative Potential:	Not available.
12.5. Mobility In Soil:	No data available.
12.6. Other Adverse Effects:	No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods:	Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. Using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply. Dispose of contents in accordance with local and national regulations. It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.
13.2. Recycling Consideration:	Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler, visit www.agrecycling.org .

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SECTION 14: TRANSPORT INFORMATION

14.1. DOT Proper Shipping Name:	Not Regulated
14.2. DOT Hazard Class:	Not Applicable
14.3. DOT Packing Group:	Not Applicable
14.4. DOT Label:	Not Applicable
14.5. IMDG Proper Shipping Name:	Not Regulated
14.6. IMDG Hazard Class:	Not Applicable
14.7. IMDG Packing Group:	Not Applicable
14.8. IMDG Marine Pollutant:	No
14.9. ICAO/IATA:	Not Applicable

SECTION 15: REGULATORY INFORMATION

15.1. Regulatory Overview:	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).
15.2. Toxic Substance Control Act (TSCA):	All ingredients of this product are listed on the TSCA inventory, or are not required to be listed on the TSCA inventory.
15.3. National Fire Protection Association (NFPA):	Health Hazards: 1 Flammability: 0 Instability: 0 Special Hazards: None
15.4. U.S. EPA Tier II Hazards:	Fire=NQ Sudden Release of Pressure=NQ Reactive=NQ Immediate (acute)=YES Delayed (chronic)=NQ
15.5. EPCRA 302–Extremely Hazardous (0.1%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.6. EPCRA 311/312–Chemicals and RQs (>0.1%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.7. EPCRA 313–Toxic Chemicals (>0.1%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.8. Proposition 65–Carcinogens (>0.0%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.9. Proposition 65–Developmental Toxins (>0.0%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.10. Proposition 65–Female Repro Toxins (>0.0%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.11. Proposition 65–Male Repro Toxins (>0.0%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.12. N.J. RTK Substances (>1%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.13. PENN RTK Substances (>1%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

SECTION 16: OTHER INFORMATION

16.1. The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Company accepts no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations and orders.