Safety Data Sheet

Issue Date: 09-Jan-1996 Revision Date: 28-Mar-2016 Version 2

1. IDENTIFICATION

Product Identifier

Product Name PolyAmine Calcium Organic

Other means of identification

SDS # FFN: 01214

Recommended use of the chemical and restrictions on use

Recommended Use Fertilizer.

Details of the supplier of the safety data sheet

Supplier Address

Verdesian Life Sciences, U.S., LLC. 1001 Winstead Drive, Suite 480 Cary, NC 27513

Emergency Telephone Number

Company Phone Number Business Phone: (800) 868-6446

Fax Phone: (919) 535-3652

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Dark liquid Physical State Liquid Odor Citrus

Classification

Serious eye damage/eye irritation Category 2

Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed

Signal Word Warning

Hazard Statements

Causes serious eve irritation



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear eye/face protection

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Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

Unknown Acute Toxicity

1% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Calcium chloride	10043-52-4	30-40
Organic Acid	Proprietary	1-5

^{**}If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If

eye irritation persists: Get medical advice/attention.

Skin Contact Wash off immediately with plenty of water.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give

oxygen.

Ingestion Call a physician.

Most important symptoms and effects

Symptoms Inhalation may cause irritation to nasal passages. May cause skin and eye irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician 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 Not determined.

Specific Hazards Arising from the Chemical

Decomposes at melting point.

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal PrecautionsUse personal protective equipment as required.

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

Absorb liquids by covering with clay or tuber absorbent material. Vacuum or sweep up

material and place in a disposal container.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Observe

precautions found on the label. Wash thoroughly after handling. Use personal protection

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recommended in Section 8.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from

incompatible materials.

Incompatible Materials Strong oxidizing agents. Strong reducing agents. Magnesium.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Organic Acid	-	15 mg / m3 (Total)	-

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Goggles.

Skin and Body Protection Rubber gloves. Wear suitable protective clothing.

Respiratory Protection None normally required. If vapors may exceed acceptable levels, use an OSHA/NIOSH-

approved respirator or mask for protection against pesticide dusts, mists, and vapors.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Remarks • Method

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Information on basic physical and chemical properties

Physical State Liquid
Appearance Dark lic

AppearanceDark liquidOdorCitrus

Color Dark Colored Odor Threshold Not determined

<u>Property</u> <u>Values</u>

pH 2.08

Melting Point/Freezing Point Not determined Boiling Point/Boiling Range Not determined **Flash Point** Not determined **Evaporation Rate** Not determined Flammability (Solid, Gas) n/a-liquid **Upper Flammability Limits** Not determined **Lower Flammability Limit** Not determined **Vapor Pressure** Not available . Vapor Density Not available **Specific Gravity** Not determined Water Solubility Not determined Solubility in other solvents Not determined **Partition Coefficient** Not determined **Auto-ignition Temperature** Not determined **Decomposition Temperature** Not determined **Kinematic Viscosity** Not determined **Dynamic Viscosity** Not determined **Explosive Properties** Not determined **Oxidizing Properties** Not determined **Density** 9.696 wt/gal

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Excessive heat.

Incompatible Materials

Strong oxidizing agents. Strong reducing agents. Magnesium.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

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Information on likely routes of exposure

Product Information

Eye Contact Causes serious eye irritation.

Skin Contact Avoid contact with skin.

Inhalation Avoid breathing vapors or mists.

Ingestion May be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Calcium chloride 10043-52-4	= 1000 mg/kg (Rat)	= 2630 mg/kg (Rat)	-
Organic Acid	= 3000 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA,

IARC or NTP.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity 1% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Calcium chloride 10043-52-4		10650: 96 h Lepomis macrochirus mg/L LC50 static		52: 48 h Daphnia magna mg/L EC50
Organic Acid		1516: 96 h Lepomis macrochirus mg/L LC50 static		120: 72 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name Partition Coefficient
Organic Acid -1.72

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Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and

regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including

exemptions and special circumstances.

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

Not determined

US Federal Regulations

SARA 311/312 Hazard Categories

Acute Health HazardYesChronic Health HazardYesFire HazardNoSudden Release of Pressure HazardNoReactive HazardNo

SARA 313

Not determined

US State Regulations

U.S. State Right-to-Know Regulations

Not determined

16. OTHER INFORMATION

NFPA Health Hazards

Not determined

Health Hazards

Not determined

Flammability
Not determined
Flammability
Not determined

Instability
Not determined
Physical Hazards
Not determined

Special Hazards
Not determined
Personal Protection
Not determined

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Disclaimer

HMIS

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End of Safety Data Sheet