Safety Data Sheet

Issue Date: 09-Jan-1996	Revision Date: 28-Mar-2016	Version 2
1. IDENTIFICATION		
Product Identifier Product Name	PolyAmine Calcium	
Other means of identification SDS #	FFN: 00007	
Recommended use of the chemical	and restrictions on use	
Recommended Use	Fertilizer.	
Details of the supplier of the safety Supplier Address Verdesian Life Sciences, U.S., LLC. 1001 Winstead Drive, Suite 480 Cary, NC 27513	data sheet_	
Emergency Telephone Number Company Phone Number Emergency Telephone (24 hr)	Business Phone: (800) 868-6446 Fax Phone: (919) 535-3652 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 (I May be harmful if swallowed	<u>INOC)</u>	
<u>Signal Word</u> Warning		
Hazard Statements Causes serious eye irritation		

Precautionary Statements - Prevention

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

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

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 Precautions** Use 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 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

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Dark liquid	Odor	Citrus

Color

Dark Colored

Odor Threshold

Not determined

Property pH Melting Point/Freezing Point Boiling Point/Boiling Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper Flammability Limits Lower Flammability Limits Lower Flammability Limit Vapor Pressure Vapor Density Specific Gravity Water Solubility Solubility in other solvents Partition Coefficient Auto-ignition Temperature	Values 2.56 Not determined Not determined Not determined n/a-liquid Not determined Not determined Not determined Not determined Not determined Not determined Not available Not determined Not determined
Auto-ignition Temperature Decomposition Temperature Kinematic Viscosity Dynamic Viscosity Explosive Properties	Not determined Not determined Not determined Not determined Not determined Not determined
Oxidizing Properties Density	Not determined 9.73 wt/gal

Remarks • Method

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

Information on likely routes of exposure

Product Information

Eye Contact

Causes serious eye irritation.

Skin ContactAvoid contact with skin.InhalationAvoid breathing vapors or mists.IngestionMay be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Calcium chloride	= 1000 mg/kg (Rat)	= 2630 mg/kg (Rat)	-
10043-52-4			
Glycine	= 7930 mg/kg (Rat)	-	-
56-40-6			
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

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.

<u>Mobility</u>

Chemical Name	Partition Coefficient
Organic Acid	-1.72

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

<u>Note</u>	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 Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Not determined

US State Regulations

U.S. State Right-to-Know Regulations Not determined

16. OTHER INFORMATION

Flammability

Flammability

Not determined

Not determined

NFPA

HMIS

Health Hazards Not determined Health Hazards Not determined

09-Jan-1996 28-Mar-2016 Address Changes Instability Not determined Physical Hazards Not determined Special Hazards Not determined Personal Protection Not determined

Disclaimer

Issue Date:

Revision Date:

Revision Note:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet