



MATERIAL SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Ammonium Citrate, Dibasic, ACS Reagent
SYNONYMS: Citric Acid, Monoammonium Salt
PRODUCT NUMBER: A114
CAS NO: 3012-65-5
NIOSH/RTECS NO: Not listed
COMPANY INFO: *PhytoTechnology Laboratories*®
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Percent	Hazardous
Ammonium Citrate, Dibasic	3012-65-5	99 %	No exposure limits established by OSHA or ACGIH

3. PHYSICAL & CHEMICAL PROPERTIES

Product Description: Ammonium Citrate, Dibasic, ACS Reagent
Formula: $(\text{NH}_4)_2\text{HC}_6\text{H}_5\text{O}_7$
Molecular Weight: 226.19 g/mol
Storage Temperature: RT
pH (0.10 g/L): Under Development (4.0-5.5 suspected range)
Vapor Density: N/A
Melting Point: N/A
Specific Gravity: 1.48 g/cm³
Solubility: Soluble in water
Appearance: White powder
Odor: Slight Ammonia Odor

4. HAZARDS IDENTIFICATION

Label Hazard Warnings: Irritating to eyes, respiratory system, and skin
Label Precautionary Statements: Do not breathe dust. Avoid contact with skin and eyes. Wear suitable protective clothing.
Laboratory Protective Equipment: Safety glasses, protective gloves, and lab coat

HMIS Rating:	Health	Flammability	Reactivity	Personal Protection Equipment
	2	1	0	-
NFPA Rating:	Health	Flammability	Reactivity	Special Hazards
	2	1	0	-

Storage and Handling Precautions: Keep container closed when not in use. Protect against physical damage. Store in a dry location away from acids and bases

5. POTENTIAL HEALTH HAZARDS/ TOXICOLOGICAL INFORMATION

Toxicity:	LD ₅₀ (Oral-Rat)(mg/Kg):	N/A
	LD ₅₀ (IV-Rat)(mg/Kg):	N/A
	LD ₅₀ (Oral-Mouse)(mg/Kg):	N/A
Carcinogenicity:	NTP:	No
	IARC:	No
	Z List:	No
	OSHA Reg:	No
Effects of Overexposure:	Irritation, shortness of breath, nausea, vomiting	
Target Organs:	None identified	
Medical Conditions Aggravated By Exposure:	Pre-existing lung disorders	
Routes of Entry:	Ingestion, inhalation	

The toxicological properties of this product have not been thoroughly investigated

6. EMERGENCY AND FIRST AID

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
Skin Contact	Direct contact may cause irritation. May cause reddening, itching, or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.

7. FIRE HAZARDS & FIRE FIGHTING MEASURES

Flash Point (Closed Cup):	N/A	
Flammable Limits:	Upper – N/A %	Lower – N/A %
Fire Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.	
Special Fire-Fighting Procedures:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.	
Unusual Fire & Explosion Hazards:	May emit toxic fumes under fire conditions.	
Toxic Gases Produced:	Carbon dioxide, carbon monoxide, nitrogen oxides, and ammonia	

8. REACTIVITY & CONDITIONS TO AVOID

Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Excessive heat
Incompatibles:	Strong oxidizing agents, strong acids, strong bases
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide, nitrogen oxides, and ammonia

9. SPECIAL PRECAUTIONS/PROTECTIVE EQUIPMENT

Ventilation:	Ventilation hood
Respiratory Protection:	A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.
Eye/Skin Protection:	Have eye-washing facilities readily available where eye contact can occur. Wear chemical safety goggles. Use appropriate chemical protective gloves when handling. Showering and changing into street clothes after work is recommended.

10. SPILLS & LEAKS

Spill or Discharge:	Contain spilled material. Sweep up and place in secure, closed containers. Avoid generating dust. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.
Disposal Procedure:	Dispose in accordance with all applicable federal, state, and local environmental regulations.
EPA Hazardous Waste Number:	N/A

11. TRANSPORTATION DATA

Domestic (D.O.T.):	Proper Shipping Name:	Environmentally hazardous substances, solid, N.O.S. (Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate)
	Hazard Class:	9
	UN/NA:	3077
	Labels:	N/A
International: IMDG:	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A
IATA:	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A

12. REGULATORY INFORMATION

U.S. Federal Regulatory Information

TSCA: Yes

SARA TITLE III:

Section 302 (EHS) Ingredients: No

Section 313 Ingredients: No

Section 304 (EHS/CERCLA) Ingredients: Yes

SARA TITLE III NOTIFICATION INFORMATION

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

International Regulatory Information

Risk Phrases: 36/37/38 – Irritating to eyes, respiratory system, and skin

Safety Phrases: 22 – Do not breathe dust
24/25 – Avoid contact with skin and eyes
36 – Wear suitable protective clothing

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