
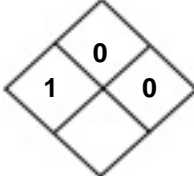


Material Safety Data Sheet

Revision Issued: 2/28/07	Supercedes: 12/31/2006	First Issued: 1/6/1997
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Section I – Product and Company Identification

Product Name: Ammonium Polyphosphate Solution	PotashCorp MSDS No.: 51 ERG No.: N/A
 <p>1101 Skokie Blvd., Northbrook, IL 60062 Phone (800) 241-6908 / (847) 849-4200</p> <p>Suite 500, 122 – 1st Avenue South Saskatoon, Saskatchewan Canada S7K7G3 Phone (800) 667-0403 from Canada (800) 667-3930 from USA</p> <p>Emergencies (800) 424-9300 (CHEMTREC) Web Site www.potashcorp.com Health Emergencies, Contact Your Local Poison Center</p>	<p>Flammability</p> <p>Health  Reactivity</p> <p>Specific Hazard</p> <p>NFPA Code</p>

Common Name:	Ammonium Polyphosphate Solution	Formula: Mixture	Synonym: POLY10, POLY11	Uses: Agricultural, Animal Feed, Industrial
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Section II – Composition / Information On Ingredients

Chemical Name	CAS No.	Exposure Limits								% by Weight
		OSHA PEL		TLV – TWA		STEL		CEIL		
		mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	
Ammonium Polyphosphate Solution	68333-79-9									
Total Phosphate as P ₂ O ₅										34-41
Nitrogen, as N										10-12
Ammonium Sulfate	7783-20-2									2

Section III – Hazard Identification

Potential Acute Health Effects:	No potential chronic health effects known.
Eyes and Skin:	Eyes: Low eye irritation potential (pH 5.7 to 6.2). Skin: Low skin irritation potential (pH 5.7 to 6.2).
Inhalation:	If misty condition prevails, may irritate.
Ingestion:	Large doses of ammonium salts may induce diarrhea and diuresis. Low oral toxicity.
Potential Chronic Health Effects:	No potential chronic health effects known.
CARCINOGENICITY LISTS	IARC Monograph: No NTP: No OSHA: No

Section IV – First Aid Measures

Eyes:	Flush eyes immediately and thoroughly with water for at least 15 minutes. If irritation persists, get prompt medical attention.
Skin:	Flush immediately and thoroughly with water. If irritation persists, get prompt medical attention.
Ingestion:	If conscious, immediately give large quantities of water and induce vomiting. Consult a physician promptly.
Inhalation:	Generally not considered an inhalation hazard.

Section V – Fire Fighting Measures			
Flash Point:	Non-flammable	Autoignition Temperature:	Not Applicable
Lower Explosive Limit:	Not Applicable	Upper Explosive Limit:	Not Applicable
Unusual Fire and Explosion Hazards:	When heated, it may give off ammonia fumes. (This material is a fire retardant.)		
Extinguishing Media:	This solution is essentially nonflammable. If involved in a fire, use water. All standard agents are acceptable (water, dry chemical, Carbon Dioxide, halon and foam).		
Special Firefighting Procedures and Equipment:	Due to possible evolution of ammonia, wear self-contained breathing apparatus approved by NIOSH. Use water spray to keep containers cool.		

Section VI – Accidental Release Measures	
Small Spill:	Contain spills and maximize recovery. Mop up or pump up promptly into metal or plastic drum. (Caution should be exercised in the area of spilled material since solution can cause a slippery condition.)
Large Spill:	Contain spill with dikes and transfer the material to appropriate containers for reclamation or disposal.
Release Notes:	If spill could potentially enter any waterway, including intermittent dry creeks, contact the local authorities. If in the U.S., contact the US COAST GUARD NATIONAL RESPONSE CENTER toll free number 800-424-8802. In case of accident or road spill notify: CHEMTREC IN USA at 800-424-9300; CANUTEC in Canada at 613-996-6666 CHEMTREC in other countries at(International code)+1-703-527-3887.
Comments:	See Section XIII for disposal information and Section XV for regulatory requirements. Large and small spills may have a broad definition depending on the user's handling system. Therefore, the spill category must be defined at the point of release by technically qualified personnel.

Section VII – Handling and Storage	
Ventilation:	Unless heated to evolve ammonia or misted by heat, agitation or spraying, natural ventilation should be adequate.
Handling:	Avoid breathing mist, if any should be formed. Minimize contact of liquid with eyes, skin and clothing. Use good personal hygiene and housekeeping.
Storage:	Avoid using containers, pipes and fittings made of zinc-clad, copper-bearing alloys or aluminum. Storage in open containers may result in formation of an ammonium polyphosphate solid on walls. Protect from physical damage. Aluminum tanks not recommended because of possible pitting.

Section VIII – Exposure Controls/ Personal Protection	
Engineering Controls:	Avoid high dust concentration and provide ventilation where necessary.
Personal Protection:	
Eye Protection:	Wear chemical goggles when eye contact is possible.
Protective Clothing:	Wear suitable gloves when handling this product over long periods. If skin irritation occurs, wear long sleeves.
Respiratory Protection:	Wear NIOSH approved respiratory protective equipment when workplace conditions warrant use of a respirator.
Other Protective Clothing or Equipment:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Section IX – Physical and Chemical Properties			
Appearance/Color/Odor:	Clear, dark green liquid with ammonia odor	Boiling Point:	Loses water at 212°F
Melting Point/Range:	Not Applicable	Boiling Point Range:	Not Available
Solubility in Water:	Miscible	Vapor Pressure (mmHg):	Not Available
Specific Gravity:	1.4 @ 74°F	Molecular Weight:	132 ((NH ₄) ₂ HPO ₄) 229 ((NH ₄) ₃ HP ₂ O ₇) 343 ((NH ₄) ₅ P ₃ O ₁₀)
Vapor Density:	Not Available	% Volatiles:	Not Available
Bulk Density:	12 lbs/gal	Evaporation Rate:	Not Available
pH:	6	Freezing Point:	Not Available
Viscosity:	70 cp @ 65°F (POLY11)	Density:	Not Available

Product Name: Ammonium Polyphosphate Solution

Section X – Stability and Reactivity	
Stability:	This product is stable under normal ambient conditions of temperature and pressure.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	High temperatures
Materials to Avoid (Incompatibles):	Zinc clad, copper bearing alloys and aluminum. Water reactive materials.
Hazardous Decomposition Products:	Ammonia

Section XI – Toxicological Information	
Significant Routes of Exposure:	Eyes, Skin, Respiratory System, Digestive Tract
Toxicity to Animals:	Low to very low toxicity based on the standard Federal Insecticide Fungicide and Rodenticide Act (FIFRA) ratings for mammals.
	Acute Oral Toxicity: (Rat) OECD Guideline 425: LD ₅₀ > 2,000 mg/kg bw.
	Acute Inhalation Toxicity: No data available.
	Acute Toxicity: Other Routes: No data available.
	Acute Dermal Toxicity: (Rat) OECD Guideline 402: LD ₅₀ > 5,000 mg/kg bw.
	Repeated Dose Toxicity: No data available.
Special Remarks on Toxicity to Animals:	Eye & Skin Irritation/Corrosion: No data available.
	Developmental Toxicity/Teratogenicity: No data available.
	Bacterial Genetic Toxicity In-Vitro: Gene Mutation: No data available.
	Non-Bacterial Genetic Toxicity In-Vitro: Chromosomal Aberration: No data available.
	Toxicity to Reproduction: No data available.
Carcinogenicity: No data available.	
Other Effects on Humans:	No data available.
Special Remarks on Chronic Effects on Humans	No data available.
Special Remarks on Other Effects on Humans:	No data available.

Section XII – Ecological Information	
Ecotoxicity	EPA Ecological Toxicity rating : Slightly toxic to practically non-toxic to aquatic organisms based on the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) acute toxicity ratings.
	Acute Toxicity to Fish: (<i>Oncorhynchus mykiss</i>) 96-hr: LC ₅₀ = > 101 mg/L
	Chronic Toxicity to Fish: No data available.
	Acute Toxicity to Aquatic Invertebrates: No data available.
	Chronic Toxicity to Aquatic Invertebrates: No data available.
	Toxicity to Aquatic Plants: No data available.
	Toxicity to Soil Dwelling Organisms: No data available.
	Toxicity to Terrestrial Plants: No data available.
Environmental Fate:	Stability in Water: Stable
	Stability in Soil: Behave as salts
	Transport and Distribution: No data available.
Toxicity:	Inorganic phosphates have the potential to increase the growth of freshwater algae, whose eventual death will reduce the available oxygen for aquatic life.
Degradation Products:	Biodegradation: The Phosphorus cycle is well understood.
	Photodegradation: No data available.

Section XIII – Disposal Considerations	
Product Disposal:	Disposer must comply with disposal and discharge laws. Disposal of solution may be subject to federal, state and local regulations. Users of this product should review their operations in terms of applicable, state and local laws and regulations, then consult with appropriate regulatory agencies before discharging or disposing of waste material.
General Comments:	None

Section XIV – Transportation Information		
	USDOT	TDG - Canada
Proper Shipping Name:	Not regulated	
Hazard Class:		
Identification Number:		
Packing Group (Technical Name):		
Labeling / Placarding:		
Authorized Packaging:		
Notes:	Ammonium polyphosphate solution is classified by the USCG as an NLS under 33 CFR 154 per reference 46 CFR 153 (and Marpol).	
European Transportation:		

Section XV – Regulatory Information										
UNITED STATES: SARA Hazard Category:	This product has been reviewed according to the EPA Hazard Categories promulgated under Section 311 and 312 of the Superfund Amendment and reauthorization Act of 1986 (SARA title III) and is considered, under applicable definitions, to meet the following categories:									
	Fire:	No	Pressure Generating:	No	Reactivity:	No	Acute:	Yes	Chronic:	No
	40 CFR Part 355 - Extremely Hazardous Substances:						None			
	40 CFR Part 370 - Hazardous Chemical Reporting:						Applicable			
All intentional ingredients listed on the TSCA inventory.										
SARA Title III Information:	This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund amendments and Reauthorization Act of 1986 and 40 CFR Part 372:									
	Chemical	CAS NO.	Percent by Weight	CERCLA RQ (lbs)	SARA (1986) Reporting					
					311	312	313			
	Ammonium Polyphosphate Solution, as P ₂ O ₅	68333-79-9	34-41		Yes	Yes	No			
	Ammonium Sulfate	7783-20-2	2		Yes	Yes	No			
CERCLA/Superfund, 40 CFR Parts 117, 302:	If this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National response Center, Washington D.C. (1-800-424-8802) is required.									
CANADA:	WHMIS Hazard Symbol and Classification:	This product is not WHMIS controlled.								
	Ingredient Disclosure List:	This product does contain ingredient(s) on this list.								
	Environmental Protection:	All intentional ingredients are listed on the DSL (Domestic Substance List).								
EINECS#:	(Ammonium Polyphosphate Solution) 269-789-9 (Ammonium Sulfate) 231-984-1									
California: Prop 65:	This is not a chemical known to cause cancer, nor is it listed.									

Section XVI – Other Information				
NFPA Hazard Ratings:	Health: 1	Fire: 0	Reactivity: 0	Special Hazards:
	0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme			
COMMENTS:	This product is TSE/BSE (Transmissible Spongiform Encephalopathy/Bovine Spongiform Encephalopathy) free. There are no animal constituents used in the manufacture of Ammonium Polyphosphate Solution for PCS Sales (USA) Inc. Our product is created through a chemical process.			
Section(s) changed since last revision:	XV			
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