

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Product name : Ammonium Polyphosphate Solution
Product code : POLY10, POLY11
Synonyms : POLY, COMPEN

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Agricultural chemical
Animal feed
Industrial use

1.3. Details of the supplier of the safety data sheet

PCS Sales (USA), Inc.
1101 Skokie Blvd.
Suite 400
Northbrook, IL 60062
T 800-241-6908 / 847-849-4200

Suite 500
122 1st Avenue South
Saskatoon, Saskatchewan Canada S7K7G3
T 800-667-0403 (Canada) / 800-667-3930 (USA)

SDS@PotashCorp.com - www.PotashCorp.com

1.4. Emergency telephone number

Emergency number : 800-424-9300
CHEMTREC

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labeling

Labeling : GHS/Hazcom 2012 Labeling: Not hazardous according to the established criteria.
Supplemental labeling : As with all chemicals, avoid contact with eyes, skin, and clothing.
Wash thoroughly after handling.

2.3. Other hazards

Other hazards not contributing to the classification : Hazardous to the aquatic environment

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Ammonium polyphosphate	(CAS No.) 68333-79-9	90 - 100	Not classified
Total Phosphate as P ₂ O ₅		34 - 37	Not classified
Nitrogen, as N		10 - 11	Not classified
Ammonium sulfate	(CAS No.) 7783-20-2	2	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Aquatic Acute 2, H401

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If medical advice is needed, have product container or label at hand.
- First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists.
- First-aid measures after skin contact : Wash skin thoroughly with mild soap and water. Obtain medical attention if irritation develops or persists.
- First-aid measures after eye contact : Immediately rinse with water for at least 15 minutes while holding the eyelids wide open. Obtain medical attention if irritation develops or persists.
- First-aid measures after ingestion : Do not induce vomiting. Seek medical attention if a large amount is swallowed. Get medical advice and attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Irritation to eyes, skin and respiratory tract.
- Symptoms/injuries after inhalation : None expected under normal conditions of use. Overexposure may be irritating to the respiratory system.
- Symptoms/injuries after skin contact : May cause mild skin irritation.
- Symptoms/injuries after eye contact : May cause eye irritation.
- Symptoms/injuries after ingestion : If a large quantity has been ingested : Abdominal pain. Diarrhea. Nausea. Vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Not flammable. Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

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5.2. Special hazards arising from the substance or mixture

- Fire hazard : If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition: Ammonia.
- Explosion hazard : Product is not explosive.
- Reactivity : Stable at ambient temperature and under normal conditions of use.

5.3. Advice for firefighters

- Firefighting instructions : Keep upwind. Under conditions of fire this material may produce: Ammonia.
- Protection during firefighting : Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).
- Other information : Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection.
- Emergency procedures : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Ventilate area.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection.
- Emergency procedures : If possible, stop flow of product. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Ventilate area.

6.2. Environmental precautions

If spill could potentially enter any waterway, including intermittent dry creeks, contact the U.S. COAST GUARD NATIONAL RESPONSE CENTER at 800-424-8802. In case of accident or road spill notify CHEMTREC at 800-424-9300. In other countries call CHEMTREC at (International code) +1-703-527-3887.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or inert absorbents to prevent migration and entry into sewers or streams. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.
- Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Collect absorbed material and place into a sealed, labelled container for proper disposal. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : When heated, material emits irritating fumes.

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- Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.
- Hygiene measures : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store tightly closed in a dry, cool and well-ventilated place.
- Incompatible materials : Zinc clad, copper bearing alloys and aluminum.

7.3. Specific end use(s)

Agricultural chemical. Animal feed. Industrial use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No exposure limit value known

8.2. Exposure controls

- Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas.
- Personal protective equipment : Gloves. Safety glasses.



- Hand protection : Impermeable protective gloves.
- Eye protection : Protective goggles.
- Skin and body protection : Handle in accordance with good industrial hygiene and safety practice. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
- Respiratory protection : Not required for normal conditions of use. Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.
- Environmental exposure controls : Ensure adequate ventilation, especially in confined areas.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear
- Colour : Dark green
- Odour : Ammonia
- Odour threshold : No data available
- pH : 6
- Molecular mass : 132 g/mol ((NH₄)₂HPO₄)
229 g/mol ((NH₄)₃HP₂O₇)
343 g/mol ((NH₄)₅P₃O₁₀)

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Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 100 °C (> 212 °F)
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.4 - 1.44 at 24 °C (75 °F)
Density	: 12 lb/gal
Solubility	: Miscible
Log Pow	: No data available
Log Kow	: No data available
Viscosity	: 140 cP at 18.3 °C (65 °F) (POLY11)
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability

Stable at standard temperature and pressure.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

High temperature.

10.5. Incompatible materials

Zinc clad, copper bearing alloys and aluminum.

10.6. Hazardous decomposition products

Ammonia.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Ammonium sulfate (7783-20-2)	
LD50 oral rat	2000 mg/kg

Ammonium polyphosphate (68333-79-9)	
LD50 oral rat	4740 mg/kg

Skin corrosion/irritation : Not classified

pH: 6

Serious eye damage/irritation : Not classified

pH: 6

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

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:	Behaves 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 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

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- Waste disposal recommendations : Place in an appropriate container and dispose of the contaminated material at a licensed site.
- Additional information : Dispose of waste material in accordance with all local, regional, national, and international regulations.

SECTION 14: Transport information

In accordance with DOT / TDG / ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

Ammonium Polyphosphate Solution is classified by the USCG as an NLS under 33 CFR 154 per reference 46 CFR 153 (and MARPOL)

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Ammonium sulfate (7783-20-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ammonium polyphosphate (68333-79-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State regulations

The following states have an OSH program approved by OSHA. If you are located in any of these states you may be under state jurisdiction rather than federal jurisdiction and your state may have more stringent requirements than OSHA. You should consult your state regulations to ensure compliance.

Alaska	Indiana	Minnesota	North Carolina	Utah
Arizona	Iowa	Nevada	Oregon	Vermont
California	Kentucky	New Mexico	Puerto Rico	*Virgin Islands
*Connecticut	Maryland	*New Jersey	South Carolina	Virginia
Hawaii	Michigan	*New York	Tennessee	Washington
*Illinois				Wyoming

*The state plans in these states apply only to public sector employers. In these states private sector employers are subject to USOL – OSHA jurisdiction. All other state plans apply to both public and private sector employers.

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Ammonium sulfate (7783-20-2)
U.S. - California - SCAQMD - Toxic Air Contaminants With Proposed Risk Values
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Ammonium polyphosphate (68333-79-9)
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

15.3. Canadian regulations

Ammonium Polyphosphate Solution	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

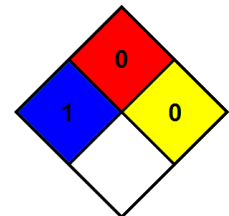
Ammonium sulfate (7783-20-2)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
Listed on the Canadian Ingredient Disclosure List – Disclosure at 1%	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Ammonium polyphosphate (68333-79-9)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

SECTION 16: Other information

- NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
- NFPA fire hazard : 0 - Materials that will not burn.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Other information : This product is TSE/BSE (Transmissible Spongiform Encephalopathy/Bovine Spongiform Encephalopathy) free. No animal constituents are used in the manufacture of this product for PCS Sales (USA) Inc. Our product is created through a chemical process.

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Irrit. 2	skin corrosion/irritation Category 2

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H302	Harmful if swallowed
H315	Causes skin irritation

Previous PotashCorp MSDS Number : MSDS 51 – Ammonium Polyphosphate Solution

SDS US (GHS HazCom 2012)

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