



Material Safety Data Sheet

Product Name

Mono-Ammonium Phosphate

Section 1 - Chemical Product and Company Identification

Product Name	MSDS No.
Mono-Ammonium Phosphate, MAP, 11-52-0	0003
Chemical Name	Version No.
Ammonium Phosphate Monobasic	02
Chemical Formula	
$(\text{NH}_4)\text{H}_2\text{P}_2\text{O}_7$	
Material Primary Use	Next Revision
Fertilizer	September,2023
Synonyms	
MAPI 1-52-0, Ammonium di-hydrogen phosphate, Fertilizer Grade Ammonium Phosphate, Granular MAP	
Company Identification	
Maaden Phosphate Company P.O Box 11 10 Jubail 31961 KSA	

Emergency Contact

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For Information

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cc@maaden.com.sa

Section 2 - Composition, Information on Ingredients

Chemical Name	CAS No.	Percent
Mono-Ammonium Phosphate	7722-76-1	100

Section 3 - Physical and Chemical Properties

Physical State	Solid (crystalline granules)	Molecular Weight	115.03
Appearance	Grey, tan, brown or black granules	Solubility	Soluble
Odor	Odorless	Boiling Point	N/A
pH	4.2 - 5.2	Melting Point	190 oc
Vapor Pressure (kPa)	N/A	Vapor Density	N/A
Viscosity	N/A	Evaporation Rate	N/A
Bulk Density	980-1050 kg/m ³	Specific Gravity	1.82 g/cm ³

Section 4 - Hazards Identification

Emergency Overview

Target Organs

Toxicity

Respiratory system, eye and skin

N/A

Potential Health Effects

Eye

Skin

Contact may cause mild eye irritation including stinging, watering and redness.

Contact may cause mild irritation including redness and a burning sensation. No harmful effects from skin absorption.

Ingestion

Over-exposure may cause nausea and gastro-intestinal irritation, vomiting, abdominal pain and jaundice.

Inhalation

Over-exposure may cause respiratory tract Irritation, coughing and shortness of breath.

Chronic

N/A

Pre- Existing Medical Conditions

Respiratory(asthma-like) disorders, dermatitis

Potential Environmental Effects

Environment

MAP is considered biodegradable and is taken up as a nutrient by vegetation. Large spills can harm or kill vegetation. May release ammonium ions in water system that are toxic to fish. May release phosphates which will result in algae growth, increased turbidity and depleted oxygen in water systems.

Section 5 - First Aid Measures

Eyes	Move victim away from exposure and into fresh air. Remove contact lenses and flush eyes with water for at least 15 minutes, keeping eyelids open .If symptoms persists, seek medical attention.
Skin	Wash with soap and water. Cover dry or irritated
Ingestion	Skin with a good quality skin lotion. If irritation develops and persists after washing, seek medical attention.
Inhalation	If person is conscious, immediately give water or milk. Do not induce vomiting. Seek medical attention. If person is unconscious, do not give anything by mouth.
Antidote	Move patient's to well-ventilated area. If breathing has stopped, start artificial respiration.
Notes to Physician	N/A

Section 6 - Firefighting Measures

Flammability	Non-Flammable
Flammability Limits	N/A
Explosion Risk	N/A
Auto-Ignition Temperature	N/A
Flash Point	N/A
Products of Combustion	Nitrogen and phosphorus oxides, and ammonia
Fire Incompatibility	
Explosion Hazard in The Presence of Various Substances	Non-explosive
Fire Fighting Media and Instructions	<ul style="list-style-type: none"> - Non-combustible. Use extinguishing media suitable for surrounding fire. - Avoid excessive water to minimize runoff. - Small Fire: Water spray, foam, dry chemical or CO₂ - Large Fire: Water spray, fog or foam. - In the event of a fire, wear full protective clothing and self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.
NFPA Rating	 <p>The diamond rating is 1-0-0-0. The top-left square is blue with a white '1'. The top-right square is red with a white '0'. The bottom-left square is blue with a white '0'. The bottom-right square is yellow with a white '0'.</p>

Section 7 - Accidental Release Measures

General Information	Non hazardous materials. Stay upwind and away from spill (dust hazard). Wear appropriate protective equipment, including respiratory protection, as conditions warrants. Slippery when wet.
Small Spills	Collect spilled material and place it in a suitable container for use or disposal.
Large Spills	<ul style="list-style-type: none">- Stop source of leak.- Dike spill to keep out of sewer system or waterways.- Collect spilled material and place it in a suitable container for use or disposal.

Section 8 - Handling and Storage

Handling	Use with adequate ventilation. The use of appropriate protection is advised when concentrations exceed any established exposure limits. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wash contaminated clothing or shoes. Use good personal hygiene practices.
Storage	Store in a cool dry well-ventilated area. Store only in approved containers. Keep containers tightly closed. Keep away from any incompatible material. Protect container(s) against physical damage. Material may absorb moisture from the air. Keep away from heat and flame.

Additional Information

Section 9 - Exposure Controls, Personal Protection

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, use adequate local exhaust or general ventilation to keep exposure to airborne contaminants below the exposure limits.

Personal Protection

Wear appropriate respiratory protection for dust/mist when ventilation is inadequate. A filtering face piece dust mask is recommended for most applications if respiratory protection is needed. Where skin and eye contact may occur as a result of brief periodic exposures, wear long sleeved clothing, coveralls, chemical resistant gloves, and safety glasses with side shields. Wash thoroughly after handling.

Personal Protection in Case of Large Release

Same as above

Exposure Limits

PEL: 5 mg/m³ (for particulates), Ammonia:25ppm(18 mg/m³)TWA:35ppm(27mg/m³)STEL

Section 10 - Personal Protective Equipment

Eyes	Chemical Safety goggles or face shield
Skin	Chemical resistant gloves
Clothing	Protective clothing or coveralls.
Respirators	NIOSH/MSHA-approved respirator

Section 11 - Stability and Reactivity

Chemical Stability	Stable under normal conditions of storage and handling.
Instability Temperature	Decomposes at 190 °C
Conditions to Avoid	Extreme temperatures
Incompatibilities with Other Materials	Highly reactive with oxidizing agents, acids, alkalis.
Hazardous Decomposition Products	May yield oxides of phosphorus and ammonia if heated to the point of decomposition.
Hazardous Polymerization	Will not occur.
Corrosivity	Corrosive to iron and mild steel, aluminum, zinc, and copper.
Special Remarks	None

Section 12 - Toxicological Information

Significant Route of Exposure	Ingestion and inhalation
Toxicity to Animals	Used as a general purpose food additive in animal drugs, feeds, and related products. It is generally recognized as safe when used in accordance with good manufacturing and feeding practice.
Chronic Effects on Humans	N/A
Other Effects on Humans	N/A

Section 13 - Ecological Information

Eco-toxicity	Will release ammonium ions (hazardous to fish). Un-ionized ammonia concentrations above 0.02 mg/l are considered toxic in fresh water. May release phosphates which will result in algae growth, increased turbidity and depleted oxygen. At extreme high concentrations, this may be hazardous to fish or other marine organisms. Release to watercourses may cause effects downstream.
Degradation	Inorganic mineral salts and oxides.
Environmental Fate	Not toxic
Special Remarks	None

Section 14 - Disposal Considerations

Waste Disposal	Dispose of in a manner consistent with local regulations.
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Section 15 - Transport Information

DOT/ TDG Classification	Not Controlled
Shipping Name	MONOAMMONIUM PHOSPHATE
Hazard Class	N/A



UN Number	N/A
Packing Group	N/A
Special Provisions	None
Additional information	None

Section 16 - Additional Information

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