

Material Safety Data Sheet

Di-ammonium Phosphate- (DAP)

Section 1 - Chemical Product and Company Identification	
Product Name	MSDS No.
Di-ammonium Phosphate, DAP, 18-46-0	0001
Chemical Name	Version No.
Ammonium phosphate dibasic	02
Chemical Formula	
$(\text{NH}_4)_2\text{HPO}_4$	
Material Primary Use	Next Revision
Fertilizer	September, 2023
Synonyms	
18-46-0, Di-ammonium hydrogen phosphate, DAP, Dibasic ammonium phosphate	
Company Identification	
Maaden Phosphate Company P.O Box 1110 Jubail 31961 KSA	
Emergency Contact	For Information
+966-13-342-6666	+966-3-342-6688 cc@maaden.com.sa

Section 2 - Composition, Information on Ingredients

Chemical Name	CAS No	Percent
Di-ammonium phosphate	7783-28-0	>85

Section 3 – Physical and Chemical Properties

Physical State	Solid (crystalline granules)	Molecular Weight	132.7
Appearance	Gray / Dark granules	Solubility	Very soluble
Odor:	Odorless	Boiling Point	N/A
pH:	7.5 - 8	Melting Point	155 °C (starts decomposing)
Vapor Pressure (kPa)	Negligible	Vapor Density	N/A
Viscosity	N/A	Evaporation Rate	N/A
Bulk Density	930-960 kg/m ³	Specific Gravity	1.5-1.7 g/cm ³

Section 4 - Hazards Identification

Emergency Overview

Target Organs	Respiratory system, eye and skin
Toxicity	N/A

Potential Health Effects


Eye	The dust may produce eye discomfort causing irritation.
Skin	Irritation to skin
Ingestion	The material is moderately discomforting to the gastrointestinal tract and may be harmful if swallowed. Such effects include vomiting, lethargy, fever and diarrhea. Considered an unlikely route of entry in commercial/industrial environments.
Inhalation	Over- Dust exposure may cause discomforting to the upper respiratory tract.
Chronic	None

Potential Environmental Effects

Environment	N/A
--------------------	-----

Section 5 - First Aid Measures	
Eyes	Remove contact lenses and flush eyes with water for at least 15 minutes, keeping eyelids open. Seek medical attention if irritation or discomfort persist.
Skin	Immediately remove all contaminated clothing, Wash affected areas thoroughly with water (and soap if available). Seek medical attention in event of irritation.
Ingestion	DO NOT induce vomiting. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water (or milk) to rinse out mouth. Seek medical advice.
Inhalation	Remove to fresh air. Encourage patient to blow nose to ensure clear breathing passages. Rinse mouth with water. Consider drinking water to remove dust from throat. Seek medical attention if irritation or discomfort persist.
Antidote	N/A
Notes to Physician	Treat symptomatically.

Section 6 - Firefighting Measures	
Flammability	Non-Flammable
Explosion Risk	N/A
Auto-Ignition Temperature	N/A
Flash Point	N/A
Flammability Limits	N/A
Products of Combustion	Nitrogen and phosphorus oxides, and ammonia
Fire Incompatibility	Avoid reaction with hypochlorites, oxidizers, strong alkalis.
Explosion Hazard in The Presence of Various Substances	Non-explosive
Fire Fighting Media and Instructions	Non-combustible. Use extinguishing media suitable for surrounding fire.

	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	

Section 7 - Accidental Release Measures

General Information	Non hazardous materials.
Small Spills	Collect spilled material and place it in a suitable container for use or disposal.
Large Spills	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 and use Proper PPE. Always wash hands with soap and water after handling.
Storage	Store in a cool dry well ventilated area.
Additional Information	Keep away from heat and flame. Work clothes should be laundered separately.

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 NIOSH- approved respiratory protection for dust 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.
Personal Protection in	Same as above

Case of Large Release	
Exposure Limits	PEL: 15 mg/m ³ (for particulates)

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.
Instability Temperature	N/A
Conditions to Avoid	N/A
Incompatibilities with Other Materials	Highly reactive with oxidizing agents, acids, alkalis.
Hazardous Decomposition Products	May yield oxides of phosphorus and ammonia.
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) and phosphate (may cause eutropication).
Degradation	Inorganic mineral salts and oxides.
Environmental Fate	Not toxic
Special Remarks	None

Section 14 - Disposal Considerations

Waste Disposal	Dispose in a manner consistent with local regulations.
-----------------------	--

Section 15 - Transport Information

DOT/ TDG Classification	Not Controlled
Shipping Name	DI-AMMONIUM PHOSPHATE
Hazard Class	N/A
UN Number	N/A
Packing Group	N/A
Special Provisions	None
Additional information	None

Section 16 – Additional Information

The information in this document is believed to be correct as of the date issued. Nothing herein contained shall be deemed to be representation or warranty with respect to the product described herein. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE, AND ALL SUCH REPRESENTATIONS AND WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED BY MAADEN PHOSPHATE COMPANY. This information and product are furnished on the condition that the person receiving them shall make their own determination as they assume the risk of their use thereof. The conditions and use of this product are beyond the control of MPC, and MPC disclaims any liability for loss or damage incurred in connection with the use or misuse of this substance.