



UNIVAR

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For Emergency Assistance involving chemicals call - CHEMTREC (800) 424-9300

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The Version Date for this MSDS is : 01/17/2005

 PRODUCT IDENTIFICATION

PRODUCT NAME: MONOAMMONIUM PHOSPHATE ANHYDROUS

MSDS#: AS010020

DATE ISSUED: 09/29/2003

SUPERSEDES: 06/27/2000

ISSUED BY: 002098

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MONOAMMONIUM PHOSPHATE ANHYDROUS
 Date: September 29, 2003
 Chemical Family: Phosphoric Salts
 Chemical Name: Phosphoric Acid, Monoammonium Salt
 Synonyms: Ammonium Phosphates, Monobasic ; MAP

Distributed by:
 Univar USA Inc.
 6100 Carillon Point
 Kirkland, WA 98033
 425-889-3400

Emergency telephone
 In USA call CHEMTREC: 1 800 424 9300
 In Canada call CANUTEC: 1 613 996 6666

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.
Monoammonium Phosphate Anhydrous	7722-76-1
Tricalcium Phosphate	1306-06-5

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: White crystals or powder with no odor

WARNING STATEMENTS

NO SIGNIFICANT HAZARDS ASSOCIATED WITH THIS MATERIAL
POTENTIAL HEALTH EFFECTS

Likely Routes of Exposure: Skin contact and inhalation

EYE CONTACT:

No more than slightly irritating based on toxicity studies. The dry powder may cause foreign body irritation in some individuals.

SKIN CONTACT:

No more than slightly toxic or slightly irritating based on toxicity studies. Prolonged contact with the dry powder may cause drying or chapping of the skin.

INHALATION:

Inhalation of the dust may cause coughing and sneezing.

INGESTION:

Is not toxic if swallowed based on toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

Refer to Section 11 for toxicological information.

4. FIRST AID MEASURES

IF IN EYES OR ON SKIN, immediate first aid is not likely to be required. However, this material can be removed with water. Remove material from eyes, skin and clothing. Wash heavily contaminated clothing before reuse.

IF INHALED, immediate first aid is not likely to be required. However, if symptoms occur, remove to fresh air.

IF SWALLOWED, immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not combustible

HAZARDOUS PRODUCTS OF COMBUSTION: Not applicable

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

6. ACCIDENTAL RELEASE MEASURES

In case of spill, sweep, scoop or vacuum and remove. Flush residual spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

7. HANDLING AND STORAGE

HANDLING

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES. THESE PRACTICES INCLUDE AVOIDING UNNECESSARY EXPOSURE AND REMOVAL OF MATERIAL FROM EYES, SKIN AND CLOTHING.

STORAGE:

Store in a cool, dry place to maintain product performance.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION:

This product does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact.

SKIN PROTECTION:

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

RESPIRATORY PROTECTION:

Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 C.F.R. 1910.134.

VENTILATION:

Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see below). The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

AIRBORNE EXPOSURE LIMITS:

OSHA and ACGIH have not established specific exposure limits for this material. However, OSHA and ACGIH have established limits for particulates not otherwise classified (PNOC) which are the least stringent exposure limits applicable to dusts.

COMPONENT: Monoammonium Phosphate Anhydrous

OSHA PEL	ACGIH TLV
15 mg/m ³ (total dust) 8-hr. TWA	10 mg/m ³ (inhalable) 8-hr. TWA
5 mg/m ³ (respirable) 8-hr. TWA	3 mg/m ³ (respirable) 8-hr. TWA

COMPONENT: Tricalcium Phosphate

OSHA PEL	ACGIH TLV
15 mg/m ³ (total dust) 8-hr. TWA	10 mg/m ³ (inhalable) 8-hr. TWA
5 mg/m ³ (respirable) 8-hr. TWA	3 mg/m ³ (respirable) 8-hr. TWA

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Formula: NH4H2PO4
 Appearance: White crystals or powder

Odor: None
pH (as a 1 % solution @ 25 degrees C): 4.5 (regular crystals with no TCP added)

Solubility in Water: 22 (g./100 g. H2O) @ 0 degrees C
38 (g./100 g. H2O) @ 20 degrees C
82 (g./100 g. H2O) @ 60 degrees C
120 (g./100 g. H2O) @ 80 degrees C

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

STABILITY:

Product is stable under normal conditions of storage and handling. Gradually loses ammonia (NH3) on exposure to air; heat accelerates loss of ammonia.

MATERIALS TO AVOID: None known

HAZARDOUS DECOMPOSITION PRODUCTS:

In the presence of fire, oxides of nitrogen could be formed.

HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION

The dry powder may cause foreign body irritation in some individuals. Prolonged contact with the dry powder may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration.

Data from Vendor single-dose (acute) animal studies with this material are given below:

Oral - rat LD50: 5,750 mg/kg; practically nontoxic
Dermal - rabbit LD50: >7,940 mg/kg; practically nontoxic
Reference No.: AST10020 June 27, 2000
Eye Irritation - rabbit (1-hr. exp.): 12.6/110.0; slightly irritating
Skin Irritation - rabbit: 0.0/8.0 avg. max.; nonirritating

Although all grades of Monoammonium Phosphate have not been tested, effects following exposure to this product are expected to be essentially the same as those reported above.

Tricalcium Phosphate (TCP) (if present)

Single-dose (acute) toxicity studies indicate that this component is practically nontoxic orally (rat) and no more than slightly toxic following skin application (rabbit). It is slightly irritating to rabbit eyes and nonirritating to rabbit skin.

12. ECOLOGICAL INFORMATION

Vendor has not conducted environmental toxicity or biodegradation studies with this product.

13. DISPOSAL CONSIDERATIONS

This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Consult your attorney or appropriate regulatory official for information on such disposal.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation

US DOT

Not regulated for transportation

Canadian TDG

Not regulated for transportation

15. REGULATORY INFORMATION

TSCA Inventory: Listed

DSL Inventory: Listed

WHMIS Classification: Not Controlled

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): Not applicable

Section 302 Extremely Hazardous Substances: Not Applicable

Section 313 Toxic Chemical(s): Not Applicable

CERCLA Reportable Quantity: Not applicable

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contains all the information required by the Canadian Controlled Products Regulation.

Refer to Section 11 for OSHA/HPA Hazardous Chemical(s) and Section 13 for RCRA classification.

16. OTHER INFORMATION

Health	Fire	Reactivity	Additional Information
Suggested NFPA Rating	1	0	0
Suggested HMIS Rating	1	0	0 E

E = Safety glasses, gloves and dust respirator

Product Use: Food Ingredient

For Additional Information:

Contact: MSDS Coordinator - Univar USA

During business hours, Pacific Time - (425) 889-3400

NOTICE

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Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Univar USA Sales Office.

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END OF MSDS