



## MATERIAL SAFETY DATA SHEET

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Ammonium Dihydrogen Orthophosphate - **90006**

### SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:

**Ammonium Dihydrogen Orthophosphate**

Catalog Numbers: A/4520, A/4560

Synonyms:

**Diammonium Hydrogen Phosphate; Phosphoric Acid Diammonium Salt.**

Company Information:

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### SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

CAS # : 7722-76-1  
Chemical Name : **Monoammonium Phosphate**  
% : 100%  
EINECS# : 231-764-5  
Hazard Symbols : **XI**  
Risk Phrases : 36/37/38

### SECTION 3- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

**Irritating to eyes, respiratory system and skin.**

Potential Health Effects

Eye:

Causes eye irritation. Contact with the eyes may cause corneal damage.

Skin:

Causes skin irritation. Prolonged and/or repeated contact may cause irritation and/or dermatitis.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation:

Causes respiratory tract irritation.



Chronic

Prolonged or repeated skin contact may cause dermatitis.

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#### SECTION 4- FIRST AID MEASURES

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Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion:

Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:

Treat symptomatically and supportively.

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#### SECTION 5- FIRE FIGHTING MEASURES

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General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible.

Extinguishing Media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

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## SECTION 6- ACCIDENTAL RELEASE MEASURES

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### General Information:

Use proper personal protective equipment as indicated in Section 8.

### Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Reduce airborne dust and prevent scattering by moistening with water. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

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## SECTION 7 - HANDLING and STORAGE

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### Handling:

Wash thoroughly after handling. Wash hands before eating. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse.

### Storage:

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances.

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## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

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### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Personal Protective Equipment

#### Eyes:

Not available.

#### Skin:

Wear appropriate protective gloves to prevent skin exposure.

#### Clothing:

Wear appropriate protective clothing to prevent skin exposure.

#### Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Physical State	:	Solid
Color	:	White
Odor	:	May have slight ammonia odor.
pH	:	8.0
Vapor Pressure	:	Not available.
Viscosity	:	Not applicable.
Boiling Point	:	Not available.
Freezing/Melting Point	:	190 deg C
Autoignition Temperature	:	Not applicable.
Flash Point	:	Not applicable.
Explosion Limits, lower	:	Not available.
Explosion Limits, upper	:	Not available.
Decomposition Temperature	:	Not available.
Solubility in water	:	Soluble in water.
Specific Gravity/Density	:	1.62 (Water=1)
Molecular Formula	:	(NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub>
Molecular Weight	:	132.0478

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## SECTION 10 - STABILITY AND REACTIVITY

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### Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

### Conditions to Avoid:

Incompatible materials, dust generation, excess heat.

### Incompatibilities with Other Materials:

Strong acids, strong bases, strong oxidizing agents, strong reducing agents.

### Hazardous Decomposition Products:

Oxides of phosphorus, irritating and toxic fumes and gases, nitrogen oxides (NO<sub>x</sub>) and ammonia (NH<sub>3</sub>).

### Hazardous Polymerization:

Has not been reported.

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SECTION 11 - TOXICOLOGICAL INFORMATION  
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RTECS#:  
CAS# 7722-76-1 unlisted.

LD50/LC50:  
Not available.

Carcinogenicity:  
Monoammonium Phosphate -  
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

See actual entry in RTECS for complete information.

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SECTION 12 - ECOLOGICAL INFORMATION  
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Information not available

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SECTION 13 - DISPOSAL CONSIDERATION  
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Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

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SECTION 14 - TRANSPORT INFORMATION  
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IATA  
Not regulated as a hazardous material.

IMO  
Not regulated as a hazardous material.

RID/ADR  
Not regulated as a hazardous material.

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## SECTION 15 - REGULATORY INFORMATION

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European/International Regulations  
European Labeling in Accordance with EC Directives

Hazard Symbols:  
XI

Risk Phrases:  
R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:  
WGK (Water Danger/Protection) CAS# 7722-76-1: 1

United Kingdom Occupational Exposure Limits  
Information not available

United Kingdom Maximum Exposure Limits  
Information not available

Canada  
CAS# 7722-76-1 is listed on Canada's DSL List.  
CAS# 7722-76-1 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits  
Information not available

US FEDERAL TSCA  
CAS# 7722-76-1 is listed on the TSCA inventory.

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## SECTION 16 - ADDITIONAL INFORMATION

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The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.