

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

1.1. Product identifier

Product form	: Substance
Trade name	: Monoammonium phosphate (MAP)
Chemical name	: Ammonium dihydrogen orthophosphate
EC-No.	: 231-764-5
CAS-No.	: 7722-76-1
REACH registration No	: 01-2119488166-29
Type of product	: Mineral
Formula	: NH ₄ H ₂ PO ₄
Product group	: Raw material

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

1.2.1. Relevant identified uses

Main use category	: Industrial use
Use of the substance/mixture	: Animal feed Flame retardants and fire preventing agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of product safety information sheet

Supplier

PHOSPHEA DANUBE
Kneza Miloša 93
1100 - Serbia
T +33 2 99 16 53 00 - F +33 2 99 16 53 00
contact@phosphea.com

Company / Registered office

TIMAB INDUSTRIES
57 Boulevard Jules Verger
35800 Dinard - France
T +33 2 99 16 53 00 - F +33 2 99 16 51 60
contact@phosphea.com - www.phosphea.com

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
Europe/Middle-East/Africa	3E		+1-760-476-3961 (Access code : 333021)	(24/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

According to EC directives or the corresponding national regulations there is no labelling obligation for this product.

No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ammonium dihydrogen orthophosphate	(CAS-No.) 7722-76-1 (EC-No.) 231-764-5 (REACH-no) 01-2119488166-29	> 90	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Allow affected person to breathe fresh air. Seek medical attention if ill effect develops.
First-aid measures after skin contact : Obtain medical attention if irritation persists. Rinse with water. Remove all contaminated clothing and footwear.
First-aid measures after eye contact : If irritation persists, consult an eye specialist. Rinse cautiously with water for several minutes.
First-aid measures after ingestion : Rinse mouth out with water. Drink plenty of water. Seek medical attention if ill effect develops. Do not give an unconscious person anything to drink.

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

Symptoms/effects after inhalation : Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact : Prolonged or repeated contact may cause skin to become dry. Contact during a long period may cause light irritation.
Symptoms/effects after eye contact : Dust from this product may cause eye irritation. May cause eye irritation.
Symptoms/effects after ingestion : Ingestion may cause nausea and 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 : Water spray.
Unsuitable extinguishing media : Sand. Foam, carbon dioxide (CO₂) and powder.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Ammonia. Phosphorus oxides. Nitrogen oxides. Chlorine.

5.3. Advice for firefighters

Firefighting instructions : Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Wear fire/flame resistant/retardant clothing. Self-contained breathing apparatus.
Other information : Do not allow run-off from fire fighting to enter drains or water courses.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid dust formation.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Do not breathe dust. Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment.

6.2. Environmental precautions

Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling : Avoid dust formation. Ensure good ventilation of the work station. Do not breathe dust.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Take off immediately all contaminated clothing and wash it before reuse. Wear personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat. Comply with applicable regulations.
Storage conditions : Keep cool. Protect from sunlight. Store in a closed container.
Incompatible products : Oxidizing agent. Strong acids. Strong bases.
Storage area : Keep out of reach of children.
Packaging materials : Polyethylene. Polypropylene. Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ammonium dihydrogen orthophosphate (7722-76-1)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	34.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	6.1 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	2.1 mg/kg bodyweight/day
Long-term - systemic effects, dermal	20.8 mg/kg bodyweight/day

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Long-term - local effects, inhalation	1.8 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	1.7 mg/l
PNEC aqua (marine water)	0.17 mg/l
PNEC aqua (intermittent, freshwater)	17 mg/l
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

Additional information : Contains no substances with occupational exposure limits

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Gloves. Safety glasses.

Materials for protective clothing:

Wear suitable protective clothing

Hand protection:

Chemical resistant gloves (according to European standard NF EN 374 or equivalent)

Eye protection:

Safety glasses. EN 166

Skin and body protection:

Boots. Wear suitable protective clothing

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Dust production: dust mask with filter type P2

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment. Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

Consumer exposure controls:

The substance is not classified for human health hazards or for environment effects and it is not PBT or vPvB so that no exposure assessment or risk characterisation is required. For tasks where the intervention of workers is required, the substance must be handled in accordance with good industrial hygiene and safety procedures.

Other information:

Do not eat, drink or smoke during use. See Heading 7 : 7.1. Precautions for safe handling.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granulate. Powder.
Molecular mass	: 115.024 g/mol
Colour	: light yellow. light cream.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 4 – 5
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: Not determined
Melting point	: 130 – 210 °C (1013 hPa; DSC)
Freezing point	: No data available
Boiling point	: Decomposes before boiling
Flash point	: Not applicable (inorganic substance)
Auto-ignition temperature	: Not flammable
Decomposition temperature	: No data
Flammability (solid, gas)	: Not flammable Not flammable
Vapour pressure	: < 1333 hPa at 20 °C
Relative vapour density at 20 °C	: 1.81 g/cm ³
Relative density	: 0.85 – 1.05 g/cm ³
Density	: 1100 kg/m ³
Solubility	: Soluble in water. Water: 370 g/l 25°C
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Strong acids. Oxidation agents. Contact with strong bases liberates ammonia.

10.4. Conditions to avoid

Overheating.

10.5. Incompatible materials

Alkalis. Acids. Copper and its alloys. Sodium hypochlorite.

10.6. Hazardous decomposition products

Ammonia. Phosphorus oxides. Nitrogen oxides. On burning: release of harmful/irritant gases/vapours. Chlorine. Hydrogen chloride.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Ammonium dihydrogen orthophosphate (7722-76-1)	
LD50 oral rat	> 2000 mg/kg (OECD 425 method)
LD50 dermal rat	> 5000 mg/kg (OECD 402 method)
LC50 Inhalation - Rat (Dust/Mist)	> 5 mg/l/4h (OECD 403 method)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 4 – 5
Additional information : (OECD 404 method) (in vivo,rabbit)
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 4 – 5
Additional information : On basis of test data (OECD 405 method) (in vivo,rabbit)
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Additional information : (OECD 429 method)
Germ cell mutagenicity : Not classified
Additional information : (OECD 471 method)
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Ammonium dihydrogen orthophosphate (7722-76-1)	
NOAEL (subacute, oral, animal/male, 28 days)	250 mg/kg bodyweight OECD 422

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Do not allow into drains or water courses.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

Ammonium dihydrogen orthophosphate (7722-76-1)	
LC50 fish 1	> 85.9 mg/l (OECD 203 method)
EC50 72h algae 1	> 100 mg/l (OECD 201 method)

12.2. Persistence and degradability

Ammonium dihydrogen orthophosphate (7722-76-1)	
Persistence and degradability	Not applicable (inorganic substance).

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12.3. Bioaccumulative potential

Ammonium dihydrogen orthophosphate (7722-76-1)

Bioaccumulative potential	There is no bioaccumulation.
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12.4. Mobility in soil

Ammonium dihydrogen orthophosphate (7722-76-1)

Ecology - soil	Material highly soluble in water. Product adsorbs little onto the soil.
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12.5. Results of PBT and vPvB assessment

Component

Ammonium dihydrogen orthophosphate (7722-76-1)	The product does not meet the PBT and vPvB classification criteria
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12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Do not re-use empty containers without proper cleaning or reconditioning. Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Do not dispose of the packaging without first carrying out the necessary cleaning. Avoid release to the environment.
Ecology - waste materials	: Do not allow large quantities, as are, to spread into the environment. Do not discharge into drains or rivers.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

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Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Ammonium dihydrogen orthophosphate is not on the REACH Candidate List

Ammonium dihydrogen orthophosphate is not on the REACH Annex XIV List

Monoammonium phosphate (MAP) is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Monoammonium phosphate (MAP) is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Canadian DSL (Domestic Substances List)

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

15.2. Chemical safety assessment

Exempted from REACH registration

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

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Abbreviations and acronyms:	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
DNEL	Derived-No Effect Level
PNEC	Predicted No-Effect Concentration
LD50	Median lethal dose
LC50	Median lethal concentration
PBT	Persistent Bioaccumulative Toxic

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vPvB	Very Persistent and Very Bioaccumulative
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development

Data sources : Safety Data Sheet Supplier. Chemical safety report (CSR).

SDS EU (REACH Annex II)