

SAFETY DATA SHEET
Monoammonium Phosphate

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Issued: 13/06/2023
Revision No: 1

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier: Monoammonium Phosphate
Ammonium Dihydrogen orthophosphate
Ammonium Phosphate, Monobasic
Ammonium dihydrogen orthophosphate

CAS: 7722-76-1

Other means of identification: Non-applicable.

Relevant identified uses of the substance or mixture and uses advised against:

Relevant uses: Chemical industry. For professional users/industrial user only.

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

GB CLP Regulation: The product is not classified as hazardous according to GB CLP Regulation.

Label elements:

GB CLP Regulation:

Hazard statements: Non-applicable.

Precautionary statements: P281: Use personal protective equipment as required.
P502: Refer to manufacturer/supplier for information on recovery/recycling.

Other hazards: Product fails to meet PBT/vPvB criteria.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance:

Chemical description: Chemical substance

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 7722-76-1	Ammonium dihydrogen orthophosphate	75 - <100 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Mixture: Non-applicable.

4. FIRST AID MEASURES

Description of first aid measures: Consult a doctor in case of discomfort showing the SDS for the product.

By inhalation: In case of symptoms, move the person affected into fresh air.

By skin contact: In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters), seek medical advice with this Safety Data Sheet.

By eye contact: Rinse with water until the product has been eliminated. In case of problems, consult a doctor showing the SDS for the product.

By ingestion/aspiration: In case of consumption in large quantities, it is recommended to seek medical assistance.

Most important symptoms and effects, both acute and delayed: Acute and delayed effects are indicated in sections 2 and 11.

Indication of any immediate medical attention and special treatment needed: Non-applicable.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: Product is non-flammable, with a low risk of fire due to the flammability characteristics of the product in normal conditions of storage, handling and use. In the case of the existence of sustained combustion as a result of improper handling, storage or use any type of extinguishing agent can be used (ABC Powder, water).

Unsuitable extinguishing media: Non-applicable.

Special hazards arising from the substance or mixture:

Due to its non-inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

Advice for firefighters: Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit).

Additional provisions: Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal.

For emergency responders: Wear protective equipment. Keep unprotected persons away. See section 8.

Environmental precautions: This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

Methods and material for containment and cleaning up:

It is recommended: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal.

Reference to other sections: See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

A.- General precautions for safe use: Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights.

Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions:

Due to its non-inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

C.- Technical recommendations on general occupational hygiene:

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks:

It is not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage:

Minimum Temp.: 2 °C

Maximum Temp.: 35 °C

Maximum time: 24 Months

B.- General conditions for storage:

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5.

[cont...]

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Specific end use(s): Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Ammonium dihydrogen orthophosphate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 7722-76-1	Dermal	Non-applicable	Non-applicable	8.3 mg/kg	Non-applicable
EC: 231-764-5	Inhalation	Non-applicable	Non-applicable	5.9 mg/m ³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Ammonium dihydrogen orthophosphate	Oral	Non-applicable	Non-applicable	0.42 mg/kg	Non-applicable
CAS: 7722-76-1	Dermal	Non-applicable	Non-applicable	4.17 mg/kg	Non-applicable
EC: 231-764-5	Inhalation	Non-applicable	Non-applicable	1.45 mg/m ³	Non-applicable

PNEC:

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Ammonium dihydrogen orthophosphate	STP	10 mg/L		Fresh water	Non-applicable
CAS: 7722-76-1	Soil	Non-applicable		Marine water	Non-applicable
EC: 231-764-5	Intermittent	Non-applicable		Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable		Sediment (Marine water)	Non-applicable

Exposure controls:

A.- Individual protection measures, such as personal protective equipment:

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection), consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection: The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands: Non-applicable

D.- Eye and face protection: Non-applicable

E.- Body protection: Non-applicable

F.- Additional emergency measures: It is not necessary to take additional emergency measures.

[cont...]

Environmental exposure controls: In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Solid
Appearance:	Crystals
Colour:	White
Odour:	Odourless
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure: Non-applicable *

Vapour pressure at 20 °C: Non-applicable *

Vapour pressure at 50 °C: Non-applicable *

Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: 1803 kg/m³

Relative density at 20 °C: 1.803

Dynamic viscosity at 20 °C: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

Kinematic viscosity at 20 °C: Non-applicable *

Kinematic viscosity at 40 °C: Non-applicable *

Concentration: Non-applicable *

pH: Non-applicable *

Vapour density at 20 °C: Non-applicable *

Partition coefficient n-octanol/water 20 °C: Non-applicable *

Solubility in water at 20 °C: >250 kg/m³

Solubility properties: Highly water-soluble

Decomposition temperature: Non-applicable *

Melting point/freezing point: 190 °C

Flammability:

Flash Point: Non-applicable

Flammability (solid, gas): Non-applicable *

Autoignition temperature: Non-applicable *

Lower flammability limit: Non-applicable *

Upper flammability limit: Non-applicable *

Explosive (Solid):

Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

Particle characteristics:

Median equivalent diameter: Non-applicable *

Other information:

Information with regard to physical hazard classes:

Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *
Corrosive to metals: Non-applicable *
Heat of combustion: Non-applicable *
Aerosols-total percentage (by mass) of flammable components: Non-applicable *

Other safety characteristics:

Surface tension at 20 °C: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

10. STABILITY AND REACTIVITY

Reactivity: No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

Chemical stability: Chemically stable under the indicated conditions of storage, handling and use.

Possibility of hazardous reactions: Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

Hazardous decomposition products: See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products.

Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Dangerous health implications: In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure.

A- Ingestion (acute effect):

Acute toxicity: Based on available data, the classification criteria are not met.
Corrosivity/Irritability: Based on available data, the classification criteria are not met.

B- Inhalation (acute effect):

Acute toxicity: Based on available data, the classification criteria are not met.
Corrosivity/Irritability: Based on available data, the classification criteria are not met.

C- Contact with the skin and the eyes (acute effect):

Contact with the skin: Based on available data, the classification criteria are not met.
Contact with the eyes: Based on available data, the classification criteria are not met.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Carcinogenicity: Based on available data, the classification criteria are not met.
IARC: Non-applicable.
Mutagenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

E- Sensitizing effects:

Respiratory: Based on available data, the classification criteria are not met.
Skin: Based on available data, the classification criteria are not met.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met.

G- Specific target organ toxicity (STOT)-repeated exposure:

Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met.
Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard: Based on available data, the classification criteria are not met.

Other information: Non-applicable.

Product-specific toxicological information:

Acute toxicity	Genus
LD50 oral 5750 mg/kg	Rat

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Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Ammonium dihydrogen orthophosphate	LD50 oral	5750 mg/kg	Rat
CAS: 7722-76-1	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	

12. ECOLOGICAL INFORMATION

Toxicity:	Not available.
Persistence and degradability:	Not available.
Bioaccumulative potential:	Not available.
Mobility in soil:	Not available.
Results of PBT and vPvB assessment:	Product fails to meet PBT/vPvB criteria.
Other adverse effects:	Not described.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Code	Description	Waste class
-	It is not possible to assign a specific code, as it depends on the intended use by the user	Non dangerous

Type of waste:	Non-applicable
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Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste Regulations 2011.

14. TRANSPORT INFORMATION

Transport class: This product does not require a classification for transport.

15. REGULATORY INFORMATION

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

Substances listed in UK candidate list of substances of very high concern (SVHCs): Non-applicable.

Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable.

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Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Abbreviations and acronyms:

- ADR: European agreement concerning the international carriage of dangerous goods by road
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- LC50: Lethal Concentration 50
- EC50: Effective concentration 50
- LogPOW: Octanol water partition coefficient
- Koc: Partition coefficient of organic carbon
- UFI: unique formula identifier
- IARC: International Agency for Research on Cancer

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.