

# SAFETY DATA SHEET (SDS)

in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II — Regulation (EU) 2020/878

Date: 23.08.2026 | Version: 1 | EN

## monobasic ammonium phosphate

azanium dihydrogen phosphate

CAS 7722-76-1

H<sub>6</sub>NO<sub>4</sub>P

EC 231-764-5

MOLAR MASS

115.03

LOGP

0.00

(pubchem)

### HAZARD CLASSIFICATION (GHS / CLP)



#### Warning

H319

Classification from aggregated ECHA C&L notifications (PubChem PUG-View); notifier consensus <75% — protective approach (all reported hazards). Requires verification against the official source (ECHA C&L / manufacturer's data sheet).

## 1. Identification of the substance/mixture and of the company/undertaking

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| 1.1 Substance name    | monobasic ammonium phosphate                    |
| 1.1 IUPAC name        | azanium dihydrogen phosphate                    |
| 1.1 CAS number        | 7722-76-1                                       |
| 1.1 EC number         | 231-764-5                                       |
| 1.1 PubChem CID       | 24402                                           |
| 1.1 InChIKey          | LFVGISIMTYGQHF-UHFFFAOYSA-N                     |
| 1.1 SMILES            | [NH4+].OP(=O)(O)[O-]                            |
| 1.1 Molecular formula | H <sub>6</sub> NO <sub>4</sub> P <sup>[7]</sup> |
| 1.1 Molar mass        | 115.03 g/mol <sup>[7]</sup>                     |
| 1.1 Exact mass        | 115.0034 Da <sup>[7]</sup>                      |

### 1.2 Uses

For laboratory and research purposes. Not for use in the production of food, medicines or cosmetics without appropriate authorisation.

### 1.3 Details of the supplier

Supplier details have not been configured (MOL-GOD → Label generator → Producer details).

### 1.4 Emergency telephone number

Emergency telephone +48 42 631 47 24

Toxicological Information Centre (CIT), Łódź — available 24/7

## 2. Hazards identification

GHS:



PPE:



**Warning**

### Hazard statements (H) <sup>[3][4]</sup>

**H319** Causes serious eye irritation

### Precautionary statements (P) <sup>[3][4]</sup>

**P264** Wash thoroughly after handling

**P280** Wear protective gloves/protective clothing/eye protection/face protection

**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes; Remove contact lenses, if present and easy to do. Continue rinsing

**P337+P313** If eye irritation persists: Get medical advice/attention

**P501** Dispose of contents/container to an approved waste collection point

**Classification from aggregated ECHA C&L notifications (PubChem PUG-View); notifier consensus <75% — protective approach (all reported hazards). Requires verification against the official source (ECHA C&L / manufacturer's data sheet).**

### 3. Composition/information on ingredients

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| Substance type    | pure substance                                                                        |
| CAS Number        | 7722-76-1                                                                             |
| EC number         | 231-764-5                                                                             |
| Molecular formula | H <sub>6</sub> NO <sub>4</sub> P                                                      |
| Concentration     | ≥99% (typical reagent-grade purity — to be confirmed by the supplier's specification) |

### 4. First aid measures



#### Inhalation

Move the affected person to fresh air. Keep at rest. If not breathing: artificial respiration (qualified personnel only). <sup>[1][2][10]</sup>

#### Skin contact

Remove contaminated clothing. Rinse skin with soap and water (min. 15 minutes). <sup>[1][2][10]</sup>

#### Eye contact

Rinse eyes with running water (min. 15 minutes). Remove contact lenses if possible. If irritation persists — consult an ophthalmologist. <sup>[1][2][10]</sup>

#### Ingestion

Do NOT induce vomiting (unless directed by a physician). Rinse mouth with water. Never give anything by mouth to an unconscious person. Poison Centre Łódź: +48 42 631 47 24 (24/7). Emergency number: 112. <sup>[1][2][10]</sup>

#### Symptoms and effects

eye irritation and watering. <sup>[3]</sup>

#### Notes for physician

Requires verification

**Emergency numbers: CIT Łódź: +48 42 631 47 24 (24/7) | Emergency: 112**

### 5. Firefighting measures

|                                |                                                                                                  |
|--------------------------------|--------------------------------------------------------------------------------------------------|
| Suitable extinguishing media   | Adapt extinguishing media to surroundings. CO <sub>2</sub> , dry powder, foam.                   |
| Unsuitable extinguishing media | No specific restrictions.                                                                        |
| Specific hazards               | Thermal decomposition products:NO <sub>x</sub> , P <sub>2</sub> O <sub>5</sub> . <sup>[11]</sup> |
| Advice for firefighters        | Use self-contained breathing apparatus (SCBA). Full protective suit.                             |

### 6. Accidental release measures

|                                         |                                                                                                                                                            |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions                    | Use personal protective equipment (see Section 8). Avoid breathing dust. <sup>[1][2][10]</sup>                                                             |
| Environmental precautions               | Prevent entry into sewers, groundwater and surface water. <sup>[1][2][10]</sup>                                                                            |
| Methods for containment and cleaning up | Collect mechanically into suitable containers. Absorption: sand, vermiculite, diatomaceous earth. Do not sweep dry (dust formation). <sup>[1][2][10]</sup> |
| Related sections                        | 8; 13                                                                                                                                                      |

### 7. Handling and storage

|                     |                                                                                                                          |
|---------------------|--------------------------------------------------------------------------------------------------------------------------|
| Precautions         | Work in a fume hood or with adequate ventilation. No eating, drinking or smoking in the work area. <sup>[1][2][10]</sup> |
| Storage temperature | Store at room temperature (15-25°C) or as indicated on the label. <sup>[1][2][10]</sup>                                  |
| Humidity            | Store in a dry place (<60% RH). <sup>[1][2][10]</sup>                                                                    |

|                               |                                                               |
|-------------------------------|---------------------------------------------------------------|
| <b>Light</b>                  | Protect from direct sunlight. <sup>[1][2][10]</sup>           |
| <b>Incompatible materials</b> | Strong oxidizers, strong acids, strong bases. <sup>[11]</sup> |

## 8. Exposure controls/personal protection

### 8.1 Control parameters

|                           |                                                                                                                                                    |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OEL — NDS (Poland)</b> | No NDS (OEL) value in the available working list — verify in the current MRPiPS regulation before use; do not assume the absence of a limit value. |
| <b>OEL (EU)</b>           | The EU OEL value has not been verified against the available dataset — check the IOELV/BOELV directives; do not assume the absence of a value.     |
| <b>DNEL</b>               | No data available.                                                                                                                                 |
| <b>PNEC</b>               | No data available.                                                                                                                                 |

### 8.2 Personal protective equipment (PPE) <sup>[5][6][12]</sup>

|                                                                                                                                                                                               |                                                                                                                                                                           |                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Chemical-resistant protective gloves</b><br/>EN ISO 374-1:2016+A1:2018<br/>nitrile (min. 0.11 mm)</p> |  <p><b>Closed safety spectacles or goggles</b><br/>EN ISO 16321-1:2022 / EN 166:2001</p> |  <p><b>Closed safety footwear with toe protection</b><br/>EN ISO 20345:2022 (S2/S3)</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 9. Physical and chemical properties

| Property (item 9.1)                                | Value                                    | Source |
|----------------------------------------------------|------------------------------------------|--------|
| <b>Physical state</b>                              | Solid                                    |        |
| <b>Colour</b>                                      | No data available.                       |        |
| <b>Odour</b>                                       | No data available.                       |        |
| <b>pH (1% aqueous solution)</b>                    | No data available.                       |        |
| <b>Melting point</b>                               | 190°C (experimental data) <sup>[7]</sup> |        |
| <b>Boiling point</b>                               | No data available.                       |        |
| <b>Flash point</b>                                 | Not applicable (REACH 9.1(h))            |        |
| <b>Flammability</b>                                | No data available.                       |        |
| <b>Lower and upper explosion limit</b>             | Not applicable (REACH 9.1(g))            |        |
| <b>Density (20°C)</b>                              | 1.801 g/cm <sup>3</sup> <sup>[7]</sup>   |        |
| <b>Vapour pressure</b>                             | No data available.                       |        |
| <b>Relative vapour density</b>                     | Not applicable (REACH 9.1(q))            |        |
| <b>Kinematic viscosity</b>                         | Not applicable (REACH 9.1(l))            |        |
| <b>Refractive index n<sub>D</sub><sup>20</sup></b> | 1.525 (experimental data) <sup>[7]</sup> |        |
| <b>Auto-ignition temperature</b>                   | No data available.                       |        |
| <b>Decomposition temperature</b>                   | Not applicable                           |        |
| <b>Rozpuszcz. w wodzie</b>                         | 404 g/L, 25°C <sup>[7]</sup>             |        |

| Property (item 9.1)             | Value                                                                                                                                                                | Source |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <b>Particle characteristics</b> | The particle size distribution has not been determined for this commercial form – required under Annex II 9.1(r); to be completed from the supplier's specification. |        |
| <b>log Kow (XLogP3)</b>         | No data available.                                                                                                                                                   |        |
| <b>Molar mass</b>               | 115.03 g/mol <sup>[7]</sup>                                                                                                                                          |        |
| <b>Molecular formula</b>        | H <sub>6</sub> NO <sub>4</sub> P <sup>[7]</sup>                                                                                                                      |        |

## 10. Stability and reactivity

|                               |                                                       |
|-------------------------------|-------------------------------------------------------|
| <b>Reactivity</b>             | Stable under normal storage and handling conditions.  |
| <b>Chemical stability</b>     | Thermally stable under recommended conditions.        |
| <b>Hazardous reactions</b>    | No hazardous reactions known under normal conditions. |
| <b>Conditions to avoid</b>    | High temperatures, direct sunlight, moisture.         |
| <b>Incompatible materials</b> | Strong oxidizers, strong acids, strong bases.         |
| <b>Decomposition products</b> | Thermal decomposition products:NOx, P2O5.             |

## 11. Toxicological information

|                                              |                                                                                                                                                   |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LD50 (oral)</b>                           | LD50 5750 mg/kg (rat, oral) <sup>[7]</sup>                                                                                                        |
| <b>LD50 (dermal)</b>                         | LD50 >7940 mg/kg (rabbit) <sup>[7]</sup>                                                                                                          |
| <b>LC50 (inhalation)</b>                     | No data available.                                                                                                                                |
| <b>Skin irritation</b>                       | No data available.                                                                                                                                |
| <b>Eye irritation</b>                        | Category 2 — eye irritation.                                                                                                                      |
| <b>Sensitisation</b>                         | No data available.                                                                                                                                |
| <b>Mutagenicity</b>                          | No data available.                                                                                                                                |
| <b>Carcinogenicity</b>                       | No data available.                                                                                                                                |
| <b>IARC classification (carcinogenicity)</b> | No individual IARC monograph for this CAS — this is not confirmation of the absence of carcinogenicity (cf. CLP/GHS classification in section 2). |
| <b>Reproductive toxicity</b>                 | No data available.                                                                                                                                |
| <b>STOT — single exposure</b>                | No data available.                                                                                                                                |
| <b>STOT — repeated exposure</b>              | No data available.                                                                                                                                |
| <b>Aspiration hazard</b>                     | No data available.                                                                                                                                |

## 12. Ecological information

|                                        |                                       |
|----------------------------------------|---------------------------------------|
| <b>Aquatic toxicity</b>                | No data available.                    |
| <b>Persistence / biodegradability</b>  | No data available.                    |
| <b>Bioaccumulative potential</b>       | No data available.                    |
| <b>Mobility in soil</b>                | No data available.                    |
| <b>PBT/vPvB assessment</b>             | Insufficient data to assess PBT/vPvB. |
| <b>Endocrine disrupting properties</b> | No information.                       |

## 13. Disposal considerations

|                         |                                                                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal method</b>  | Hand over for disposal to licensed contractors in accordance with national and local regulations. Do not discharge into sewers.                              |
| <b>Waste code (EWC)</b> | 16 05 06* — Laboratory and analytical chemicals (np. chemical reagents) zawierające substancje niebezpieczne. EWC code verification required. <sup>[9]</sup> |
| <b>Packaging</b>        | Cleaned packaging may be recycled. Contaminated packaging must be treated as hazardous waste.                                                                |

## 14. Transport information

|                             |                                                                                                                                                                                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UN number</b>            | VERIFICATION REQUIRED — no verified UN assignment.                                                                                                                                                                                                      |
| <b>Environmental hazard</b> | Environmental hazard for transport: not verified. Non-harmonised classification (outside CLP Annex VI) — verify aquatic toxicity (Section 12) and do NOT assume marine pollutant marking is not required; confirm per ADR 2.2.9 / IMDG before shipping. |
| <b>Special precautions</b>  | Handle as dangerous goods according to the assigned class (ADR/IMDG/IATA); apply the precautions appropriate to that class.                                                                                                                             |
| <b>CN/HS code</b>           | CN/HS code: verification required in the Eurostat Combined Nomenclature.                                                                                                                                                                                |
| <b>Notes</b>                | Transport classification not verified. Do not assume the absence of restrictions — check ADR/IMDG/IATA before shipping.                                                                                                                                 |

## 15. Regulatory information

|                         |                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SVHC status</b>      | SVHC status not verified against the available dataset — check the current ECHA Candidate List; do not assume absence. <sup>[1]</sup>                                       |
| <b>REACH Annex XIV</b>  | Not verified against the ECHA Authorisation List — check REACH Annex XIV. <sup>[1]</sup>                                                                                    |
| <b>REACH Annex XVII</b> | Not confirmed in the available Annex XVII dataset — verify against the current ECHA list before placing on the market; do not assume absence of restriction. <sup>[1]</sup> |

## 16. Other information

Legal status of classification: supplier self-classification under Art. 4(3) CLP — no harmonised entry in Annex VI. Entries with an entry-into-force date after 23.08.2026 were omitted as future (not yet applicable).

Data aggregated automatically from public reference databases (PubChem, ECHA, NIST and others).

### Scientific citations (10)

- et al.. Provisional Peer-Reviewed Toxicity Values for Ammonium Salts of Inorganic Phosphates: Monoammonium Phosphate (MAP) (CASRN 7722-76-1) Diammonium Phosphate (DAP) (CASRN 7783-28-0). (2021).
- Zhihao Wang, Ji-Guang Li, Qi Zhu et al.. EDTA-assisted phase conversion synthesis of (Gd<sub>0.95</sub>RE<sub>0.05</sub>)PO<sub>4</sub> nanowires (RE = Eu, Tb) and investigation of photoluminescence. Science and Technology of Advanced Materials (2017). DOI: 10.1080/14686996.2017.1338495
- Zuzanna Szubert, Bartłomiej Mazela, Karolina Tomkowiak et al.. Fire Properties of Paper Sheets Made of Cellulose Fibers Treated with Various Retardants. Materials (2024). DOI: 10.3390/ma17133074
- Daniel Lemos, Rafael Coelho, Sjo Zwart et al.. Performance and digestibility of inorganic phosphates in diets for juvenile shrimp (*Litopenaeus vannamei*): dicalcium phosphate, monocalcium phosphate, and monoammonium phosphate. Aquaculture International (2021). DOI: 10.1007/s10499-021-00651-3
- Daniel Veras Ribeiro, Gustavo Rocha de Paula, Marcio Raymundo Morelli. Effect of MgO/NH<sub>4</sub>H<sub>2</sub>PO<sub>4</sub> Ratio on the Properties of Magnesium Phosphate Cements. Materials Research (2020). DOI: 10.1590/1980-5373-mr-2020-0034

## Full text of H statements

**H319** Causes serious eye irritation

## Full text of P statements

**P264** Wash thoroughly after handling

**P280** Wear protective gloves/protective clothing/eye protection/face protection

**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes; Remove contact lenses, if present and easy to do. Continue rinsing

**P337+P313** If eye irritation persists: Get medical advice/attention

**P501** Dispose of contents/container to an approved waste collection point

## Abbreviations

|              |                                                                                            |
|--------------|--------------------------------------------------------------------------------------------|
| <b>ADR</b>   | European Agreement concerning the International Carriage of Dangerous Goods by Road        |
| <b>ATE</b>   | Acute Toxicity Estimate                                                                    |
| <b>CAS</b>   | Chemical Abstracts Service                                                                 |
| <b>CLP</b>   | Classification, Labelling and Packaging (Reg. (EC) 1272/2008)                              |
| <b>CMR</b>   | Carcinogenic, Mutagenic, toxic to Reproduction                                             |
| <b>DNEL</b>  | Derived No-Effect Level                                                                    |
| <b>EC</b>    | European Community number                                                                  |
| <b>EPI</b>   | Personal protective equipment                                                              |
| <b>GHS</b>   | Globally Harmonized System                                                                 |
| <b>IATA</b>  | International Air Transport Association                                                    |
| <b>IMDG</b>  | International Maritime Dangerous Goods Code                                                |
| <b>SDS</b>   | Safety Data Sheet                                                                          |
| <b>LC50</b>  | Lethal Concentration, 50%                                                                  |
| <b>LD50</b>  | Lethal Dose, 50%                                                                           |
| <b>NDS</b>   | Maximum admissible concentration (workplace, PL)                                           |
| <b>NDSch</b> | Short-term exposure limit (PL)                                                             |
| <b>OEL</b>   | Occupational Exposure Limit                                                                |
| <b>PBT</b>   | Persistent, Bioaccumulative and Toxic                                                      |
| <b>PNEC</b>  | Predicted No-Effect Concentration                                                          |
| <b>REACH</b> | Registration, Evaluation, Authorisation and Restriction of Chemicals (Reg. (EC) 1907/2006) |
| <b>STOT</b>  | Specific Target Organ Toxicity                                                             |
| <b>SVHC</b>  | Substance of Very High Concern                                                             |
| <b>TPSA</b>  | Topological Polar Surface Area                                                             |
| <b>vPvB</b>  | very Persistent and very Bioaccumulative                                                   |

## Version history

**v1 (23.08.2026)** Based on supplier self-classification (ECHA C&L notifications; no harmonised entry in Annex VI).

## References

- [1] EP and Council. Reg.(EC) No 1907/2006 (REACH). Art.31, Annex II. OJ EU L 396/2006. URL: <https://eur-lex.europa.eu/eli/reg/2006/1907/oj> Accessed: 2026-08-23.
- [2] European Commission. Reg.(EU) 2020/878 — amending Annex II REACH. OJ EU L 203/2020. From 01.01.2023. URL: <https://eur-lex.europa.eu/eli/reg/2020/878/oj> Accessed: 2026-08-23.
- [3] EP and Council. Reg.(EC) 1272/2008 (CLP) + ATP 23. OJ EU L 353/2008. (2026-07-07) URL: <https://eur-lex.europa.eu/eli/reg/2008/1272/oj> Accessed: 2026-08-23.
- [4] United Nations. GHS Rev.9. ST/SG/AC.10/30/Rev.9. New York and Geneva: United Nations, 2021. URL: <https://unece.org/transport/dangerous-goods/ghs-rev9-2021> Accessed: 2026-08-23.
- [5] ISO. ISO 7010:2019 — Graphical symbols. Safety signs. URL: <https://www.iso.org/standard/72424.html> Accessed: 2026-08-23.

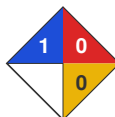
- [6] ISO. ISO 3864-1:2011 — Safety colours and safety signs. URL: <https://www.iso.org/standard/51021.html> Accessed: 2026-08-23.
- [7] PubChem. National Center for Biotechnology Information (NIH/NLM), chemical compound database. URL: <https://pubchem.ncbi.nlm.nih.gov/compound/24402>
- [8] ECHA. European Chemicals Agency — harmonised classification inventory (CLP Annex VI). URL: <https://echa.europa.eu>
- [9] European Commission. Decision 2000/532/EC establishing a list of wastes (European Waste Catalogue). OJ EU L 226/3. URL: <https://eur-lex.europa.eu/eli/dec/2000/532/oj>
- [10] European Chemicals Agency (ECHA). Guidance on the Compilation of Safety Data Sheets. Version 4.0. Helsinki: European Chemicals Agency, 2020. URL: [https://echa.europa.eu/documents/10162/2324906/sds\\_en.pdf](https://echa.europa.eu/documents/10162/2324906/sds_en.pdf)
- [11] Urben, P.G., ed. Bretherick's Handbook of Reactive Chemical Hazards. 8th ed. Oxford: Academic Press.
- [12] CEN. Personal protective equipment standards (EN ISO 374-1, EN 166, EN 149, EN 14387, EN ISO 20345). Brussels: European Committee for Standardization.
- [13] MRIPS Regulation of 12.06.2018 — NDS/NDN. Journal of Laws 2024 item 1017. URL: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20240001017> Accessed: 2026-08-23.

### External links

NIST: <https://webbook.nist.gov/cgi/cbook.cgi?ID=7722-76-1>

Wikidata: <https://www.wikidata.org/wiki/Q419087>

**NFPA 704** (supplementary information — NFPA/USA system; not a required element of an EU safety data sheet under REACH Annex II)



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**Generator:** Document generated automatically from supplier self-classification (ECHA C&L notifications) and public physicochemical databases.

**Author:** [www.MolGod.org](http://www.MolGod.org) — platform for automated safety data sheets (SDS).

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