

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ammonium dihydrogen phosphate-magnesium nitrate-matrix modifier for graphite furnace AAS 1 % NH<sub>4</sub>H<sub>2</sub>PO

Revision date: 01.10.2024

Product code: 10673

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

##### 1.1. Product identifier

Ammonium dihydrogen phosphate-magnesium nitrate-matrix modifier for graphite furnace AAS 1 % NH<sub>4</sub>H<sub>2</sub>PO

UFI: VAJX-50HY-A00W-WNXS

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

###### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

###### Uses advised against

Do not use for private purposes (household).

##### 1.3. Details of the supplier of the safety data sheet

|                         |                                  |                              |
|-------------------------|----------------------------------|------------------------------|
| Company name:           | AnalytiChem GmbH                 |                              |
|                         | ACD                              |                              |
| Street:                 | Stempelstraße 6                  |                              |
| Place:                  | D-47167 Duisburg                 |                              |
| Telephone:              | 0203/5194-0                      | Telefax: 0203/5194-290       |
| E-mail:                 | info@analytichem.de              |                              |
| Contact person:         | Abteilung Produktsicherheit      | Telephone: 0203/5194-107/117 |
| E-mail:                 | produktsicherheit@analytichem.de |                              |
| Internet:               | www.analytichem.de               |                              |
| Responsible Department: | Abteilung Produktsicherheit      |                              |

##### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

##### Further Information

This product is a mixture. REACH Registration Number see section 3.

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

##### 2.2. Label elements

##### 2.3. Other hazards

No data available

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

###### Chemical characterization

Mixtures in aqueous solution

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#### Relevant ingredients

| CAS No    | Chemical name                                 |          |                  | Quantity  |
|-----------|---|----------|------------------|-----------|
|           | EC No   | Index No | REACH No         |           |
|           | Classification (Regulation (EC) No 1272/2008) |          |                  |           |
| 7722-76-1 | ammonium dihydrogenorthophosphate             |          |                  | 1 - < 5 % |
|           | 231-764-5                                     |          | 01-2119488166-29 |           |

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

| CAS No    | EC No     | Chemical name  | Quantity  |
|-----------|-----------|--|-----------|
|           |           | Specific Conc. Limits, M-factors and ATE   |           |
| 7722-76-1 | 231-764-5 | ammonium dihydrogenorthophosphate  | 1 - < 5 % |
|           |           | inhalation: LC50 = > 5 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg; oral: LD50 = 3260 mg/kg |           |

#### Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

No data available

#### After inhalation

Provide fresh air.

#### After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

In case of eye irritation consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

No data available

### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

#### Unsuitable extinguishing media

no restriction

### 5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

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Hazardous combustion products  
In case of fire may be liberated:  
Nitrogen oxides (NO<sub>x</sub>)

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Consult an expert  
Do not breathe dust/fume/gas/mist/vapours/spray.

#### **For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

### **6.3. Methods and material for containment and cleaning up**

#### **For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

#### **Other information**

Provide adequate ventilation.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

### **6.4. Reference to other sections**

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Do not breathe vapour/aerosol.

#### **Advice on protection against fire and explosion**

Usual measures for fire prevention.

#### **Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.  
Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

#### **Further information on handling**

Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Take off immediately all contaminated clothing and wash it before reuse.

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**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container tightly closed.

**Further information on storage conditions**

Keep container dry.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**DNEL/DMEL values**

| CAS No                   | Substance                         | Exposure route | Effect   | Value                 |
|--------------------------|-----------------------------------|----------------|----------|-----------------------|
| 7722-76-1                | ammonium dihydrogenorthophosphate |                |          |                       |
| Worker DNEL, long-term   |                                   | inhalation     | systemic | 6,1 mg/m <sup>3</sup> |
| Worker DNEL, long-term   |                                   | dermal         | systemic | 34,7 mg/kg bw/day     |
| Consumer DNEL, long-term |                                   | inhalation     | systemic | 1,8 mg/m <sup>3</sup> |
| Consumer DNEL, long-term |                                   | dermal         | systemic | 20,8 mg/kg bw/day     |
| Consumer DNEL, long-term |                                   | oral           | systemic | 2,1 mg/kg bw/day      |

**PNEC values**

| CAS No   | Substance                         | Value     |
|--|-----------------------------------|-----------|
| 7722-76-1  | ammonium dihydrogenorthophosphate |           |
| Environmental compartment                        |                                   |           |
| Freshwater                                       |                                   | 1,7 mg/l  |
| Freshwater (intermittent releases)               |                                   | 17 mg/l   |
| Marine water                                     |                                   | 0,17 mg/l |
| Micro-organisms in sewage treatment plants (STP) |                                   | 10 mg/l   |

**8.2. Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles

Wear eye/face protection.

**Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

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Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

#### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

#### Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |            |                         |
|---|------------|-------------------------|
| Physical state:   | Liquid     |                         |
| Colour:   | colourless |                         |
| Odour:  | odourless  |                         |
| Melting point/freezing point:                             |            | No data available       |
| Boiling point or initial boiling point and boiling range: |            | No data available       |
| Flammability:   |            | No data available       |
| Lower explosion limits:                                   |            | No data available       |
| Upper explosion limits:                                   |            | No data available       |
| Flash point:  |            | No data available       |
| Auto-ignition temperature:                                |            | No data available       |
| Decomposition temperature:                                |            | No data available       |
| pH-Value:   |            | <1                      |
| Viscosity / kinematic:                                    |            | No data available       |
| Water solubility:   |            | completely miscible     |
| Solubility in other solvents                              |            |                         |
| No data available   |            |                         |
| Partition coefficient n-octanol/water:                    |            | No data available       |
| Vapour pressure:  |            | No data available       |
| Vapour pressure:  |            | No data available       |
| Density:  |            | 1,008 g/cm <sup>3</sup> |
| Bulk density:   |            | No data available       |
| Relative vapour density:                                  |            | No data available       |

### 9.2. Other information

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#### Information with regard to physical hazard classes

Explosive properties

No data available

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

Oxidizing

#### Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

0

Solid content:

0

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

No data available

Flow time:

No data available

#### Further Information

No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

No data available

#### 10.5. Incompatible materials

No data available

#### 10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

#### Further information

No data available

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

##### Acute toxicity

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

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**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No    | Chemical name                     |                   |         |  |                      |
|-----------|-----------------------------------|-------------------|---------|--|----------------------|
|           | Exposure route                    | Dose              | Species | Source                                   | Method               |
| 7722-76-1 | ammonium dihydrogenorthophosphate |                   |         |  |                      |
|           | oral                              | LD50 3260 mg/kg   | Rat     | Monsanto Company, Missouri, USA, Dec 22, | other: Not indicated |
|           | dermal                            | LD50 > 5000 mg/kg | Rat     | Study report (2000)                      | OECD Guideline 402   |
|           | inhalation (4 h) dust/mist        | LC50 > 5 mg/l     | Rat     | Study report (2010)                      | OECD Guideline 403   |

**Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Specific effects in experiment on an animal**

There are no data available on the preparation/mixture itself.

**Additional information on tests**

There are no data available on the preparation/mixture itself.

**Practical experience**

There are no data available on the preparation/mixture itself.

**11.2. Information on other hazards**

**Other information**

There are no data available on the preparation/mixture itself.

**Further information**

There are no data available on the preparation/mixture itself.

**SECTION 12: Ecological information**

**12.1. Toxicity**

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

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| CAS No    | Chemical name                     |                        |           |   |                     |                    |
|-----------|-----------------------------------|------------------------|-----------|---|---------------------|--------------------|
|           | Aquatic toxicity                  | Dose                   | [h]   [d] | Species   | Source              | Method             |
| 7722-76-1 | ammonium dihydrogenorthophosphate |                        |           |   |                     |                    |
|           | Acute fish toxicity               | LC50 > 85,9<br>mg/l    | 96 h      | Oncorhynchus mykiss                                 | Study report (2000) | OECD Guideline 203 |
|           | Acute algae toxicity              | ErC50 > 97,1<br>mg/l   | 72 h      | Pseudokirchneriella subcapitata                     | Study report (2000) | OECD Guideline 201 |
|           | Acute bacteria toxicity           | EC50 > 100<br>mg/l ( ) | 3 h       | activated sludge of a predominantly domestic sewage | Study report (2010) | OECD Guideline 209 |

**12.2. Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations. Do not empty into drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.  
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

- 14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- 14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- 14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

- 14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- 14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- 14.4. Packing group:** No dangerous good in sense of this transport regulation.

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#### Marine transport (IMDG)

|  |  |
|--|--|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

#### Air transport (ICAO-TI/IATA-DGR)

|  |  |
|--|--|
| <b>14.1. UN number or ID number:</b>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

#### 14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

### SECTION 15: Regulatory information

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

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

#### National regulatory information

Water hazard class (D): - - non-hazardous to water

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,3,5,6,7,9,12,15.

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Provide appropriate information, instructions and training to users

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*