Material Data Safety Sheet (MSDS) - AMMONIUM DIHYDROGENPHOSPHATE

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

Product identifiers

Product name : Ammonium dihydrogenphosphate
Product Number : 204005
CAS-No. : 7722-76-1

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

Identified uses : Laboratory chemicals, Manufacture of substances

2. Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Label elements

Not a hazardous substance or mixture.

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. Composition/information on ingredients

Substances


Formula : $H_6NO_4P$
Molecular weight : 115.03 g/mol
4. First aid measures

Description of first aid measures If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed
No data available

5. Firefighting measures

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Nitrogen oxides (NOx), Oxides of phosphorus

Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data available

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

Environmental precautions
No special environmental precautions required.

Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.
Reference to other sections
For disposal see section 13.

7. Handling and storage

Precautions for safe handling
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Non Combustible Solids

Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

Control parameters
Exposure controls
Appropriate engineering controls
General industrial hygiene practice.

Personal protective equipment. Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-
Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance i.e (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

9. Physical and chemical properties

Information on basic physical and chemical properties

| A) Appearance Form: crystalline Colour | white |
| b) Odour | odourless |
| c) Odour Threshold | No data available |
| d) pH | 3.8 - 4.4 at 50 g/l at 25 °C |
| e) Melting point/freezing point | 190 °C - dec. |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | Not applicable |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Vapour pressure | < 0.00147 Pa at 20 °C - OECD Test Guideline 104 |
| k) Vapour density | No data available |
1) Relative density 1.81 g/cm³ at 20 °C - OECD Test Guideline 109

m) Water solubility soluble

n) Partition coefficient n-octanol/water

o) Auto-ignition temperature No data Available

p) Decomposition temperature No data Available

q) Viscosity No data available

r) Explosive properties No data available

s) Oxidizing properties No data available

9.2 Other safety information

Bulk density 1,000 kg/m³

10. Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents, Strong acids, sodium hypochlorite

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx), Oxides of phosphorus

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11. Information on toxicological effects Acute toxicity

LD₅₀ Oral - Rat - male and female - > 2,000 mg/kg(Ammonium dihydrogenorthophosphate) LD₅₀ Dermal - Rat - male and female - > 5,000 mg/kg(Ammonium dihydrogenorthophosphate) (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit(Ammonium dihydrogenorthophosphate)

Result: No skin irritation - 24 h (OECD Test Guideline 404)
Serious eye damage/eye irritation

Eyes - Rabbit (Ammonium dihydrogenorthophosphate)
Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitization
No data available (Ammonium dihydrogenorthophosphate)

Germ cell mutagenicity
Mouse (Ammonium dihydrogenorthophosphate) lymphocyte
Result: negative

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1%
        is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available (Ammonium dihydrogenorthophosphate)

Specific target organ toxicity - single exposure
No data available (Ammonium dihydrogenorthophosphate)

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available (Ammonium dihydrogenorthophosphate)

Additional Information
RTECS: Not available
To the best of our knowledge, the chemical, physical, and toxicological
properties have not been thoroughly investigated. (Ammonium dihydrogenorthophosphate)

12. Ecological information

Toxicity
Toxicity to fish static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 85.9 mg/l - 96 h (Ammonium dihydrogenorthophosphate)

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available (Ammonium dihydrogenorthophosphate)

Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Other adverse effects**

No data available

### 13. Disposal considerations

**Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

### 14. Transport information

**UN number**

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**UN proper shipping name**

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**Transport hazard class(es)**

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**Packaging group**

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**Environmental hazards**

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**Special precautions for user**

No data available

### 15. Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**Chemical safety assessment**

For this product a chemical safety assessment was not carried out

### 16. Other information

**Disclaimer:**

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