

SAFETY DATA SHEET

Based on Directive 91/155/EEC of the Commission of
the European Communities

MONOPOTASSIUM PHOSPHATE

1. Identification of the substance/preparation and the company

1.1 Identification of the substance or preparation:

Synonyms : MKP
Monobasic potassium phosphate
Potassium dihydrogen phosphate

CAS no. : 007778-77-0
EC index no. : N.A. **NFPA code :** N.D.
EINECS no. : 231-913-4 **Molecular weight :** 136.09
RTECS no. : N.A. **Formula :** KH₂PO₄

1.2 Company/undertaking identification:

Hi-Chem N.V.
Generaal de Wittelaan 17, bus 16
B-2800 Mechelen, Belgium
Tel. : (+32) 15-27 08 11 - Fax. : (+32) 15-27 08 15

1.3 Telephone number for emergency:

please contact your local anti-poison emergency number

2. Composition/information on ingredients

Ingredients	CAS no.	Conc in %	Hazard class.	Risks (R-phrases)
Monopotassium phosphate	007778-77-0	100	-	-

3. Hazards identification

- No hazard classification

4. First aid measures

4.1 Eye contact:

- Rinse immediately with plenty of water for 15 minutes
- Do not apply neutralizing agents
- Consult a doctor/medical service if irritation persists

4.2 Skin contact:

- Wash immediately with lots of water and soap for 15 minutes
- Consult a doctor/medical service if irritation persists

4.3 After inhalation:

- Remove the victim into fresh air
- Unconscious: maintain adequate airway and respiration
- Consult a doctor/medical service if breathing problems develop

4.4 After ingestion:

- Immediately give lots of water to drink
- Never give water to an unconscious person
- Do not allow vomiting
- Consult a doctor/medical service if you feel unwell

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5. Fire-fighting measures

- 5.1 Suitable extinguishing media:**
- Non combustible
 - For surrounding fires: all extinguishing media allowed
- 5.2 Unsuitable extinguishing media:**
- No data available
- 5.3 Special exposure hazards:**
- On heating/burning: release of toxic and corrosive gases/vapours (phosphorus oxides)
- 5.4 Instructions:**
- Cool tanks/drums with water spray/remove them into safety
 - Dilute toxic gases with water spray
 - Do not move the load if exposed to heat
- 5.5 Special protective equipment for firefighters:**
- Heat/fire exposure: compressed air/oxygen apparatus
 - Heat/fire exposure: gas-tight suit

6. Accidental release measures

- 6.1 Personal protection:** see 8.3
- 6.2 Environmental precautions:**
- Knock down/dilute dust cloud with water spray
 - Collect/pump leaking substance into suitable containers
 - Plug the leak, cut off the supply
- 6.3 Clean-up:**
- Stop dust cloud by humidifying
 - Scoop solid spill into closing containers
 - Clean contaminated surfaces with an excess of water
 - Wash clothing and equipment after handling

7. Handling and storage

- 7.1 Handling:**
- Observe normal hygiene standards
 - Avoid raising dust
 - Remove contaminated clothing immediately
 - Clean contaminated clothing
- 7.2 Storage:**
- Keep container tightly closed
 - Store in a dry area
 - Store in a well-ventilated area
 - Keep away from: heat sources, bases, oxidizing agents
- Storage temperature:** Ambient temperature
- 7.3 Materials for packaging:**
- suitable : paper, fibreboard, polyethylene, textile, synthetic materia
 - to avoid : steel, aluminium

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8. Exposure controls/Personal protection

8.1 Recommended engineering controls:

- Work under local exhaust/ventilation

Sampling methods:

- Potassium and compounds (OSHA ID 121)

8.2 Exposure limits: (ACGIH-USA: 1997)

TLV value : not listed

8.3 Personal protection:

eye protection:

- Safety glasses
- In case of dust production: protective goggles

hand protection:

- Gloves

skin protection:

- Protective clothing

materials for protective clothing:

- Synthetic material
- Rubber

respiratory protection:

- Dust formation: dust mask

9. Physical and chemical properties

9.1 Appearance (at 20°C)	:	Crystalline solid / Crystalline powder
9.2 Odour	:	Odourless
9.3 Colour	:	Colourless or white
9.4 pH value	:	4.5 (1% solution)
9.5 Boiling point/boiling range	:	N.D. °C
9.6 Melting point/melting range	:	253 °C
9.7 Flashpoint	:	N.A. °C
9.8 Auto-ignition point	:	N.A. °C
9.9 Explosion limits	:	N.A. vol% (°C)
9.10 Vapour pressure (at 20°C)	:	N.D. hPa
9.11 Relative density (at 20°C)	:	2.3
9.12 Water solubility	:	22 g/100 ml
9.13 Soluble in	:	N.D.
9.14 Relative vapour density	:	N.D.
9.15 Saturation concentration	:	N.D. g/m ³
9.16 Viscosity	:	N.D. Pa.s

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10. Stability and reactivity

10.1 Stability:

- Hygroscopic

10.2 Reactivity/Hazardous decomposition products:

- On heating/burning: release of toxic and corrosive gases/vapours (phosphorus oxides)
- Decomposes on exposure to temperature rise: release of toxic/combustible gases/vapours (phosphine)
- Reacts violently with (some) bases

10.3 Conditions/materials to avoid:

- Keep away from: heat sources, bases, oxidizing agents

11. Toxicological information

11.1 Acute toxicity:

LD50 oral rat	: 7100	mg/kg
LD50 dermal rat	: N.D.	mg/kg
LD50 dermal rabbit	: > 4640	mg/kg
LC50 inhalation rat	: N.D.	mg/l/4 h

11.2 Chronic toxicity:

EC carc. cat.: not listed
EC muta. cat.: not listed
EC repr. cat.: not listed

Carcinogenicity (TLV): not listed

IARC classification: not listed

11.3 Routes of exposure: swallowed, inhalation, eyes and skin

11.4 Acute effects/symptoms:

AFTER INHALATION OF DUST :
- Irritation of the respiratory tract
- Irritation of the nasal mucous membranes

AFTER INGESTION :
AFTER ABSORPTION OF HIGH QUANTITIES:
- Vomiting
- Nausea
- Abdominal pain
- Diarrhoea
- Feeling of weakness
- Paralysis
- Slowing heart action

AFTER EYE CONTACT :
- Irritation of the eye tissue

11.5 Chronic effects:

- No data available

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12. Ecological information

12.1 Mobility:

- Soluble in water

12.2 Biodegradation:

- soil:	T $\frac{1}{2}$: N.D.	days
	BOD ₅	: N.A.	g O ₂ /g substance
	COD	: N.A.	g O ₂ /g substance

- water: - No data available

- 12.3 Bioaccumulation:
- log P_{ow} : N.D.
 - BCF : N.D.

12.4 Aquatic toxicity:

- LC50 (48 h) : > 900 mg/l (LEUCISCUS IDUS)

12.5 Other information:

- WGK: 1
- Effect on the ozone layer : N.D.
- Waste water purification : N.D.

13. Waste disposal considerations

13.1 Provisions relating to waste:

- Waste code (EC):
EWC code (75/442/EC): 06 03 07

13.2 Disposal methods:

- Landfill or incinerate at an approved site in accordance with national and local regulations
- Recycle/reuse
- Precipitate/make insoluble
- Remove to an authorized dump (Class I)
- Do not discharge into surface water

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14. Transport information

- 14.1 Proper shipping name: N.A.
- 14.2 Transport by road/rail (ADR/RID): N.A.
Danger code: -
Danger labels on tanks: -
on packages: -
- 14.3 Substance identification number (UN number): N.A.
Packing: -
- 14.4 Maritime transport (IMDG code): N.A.
EMS : -
MFAG : -
Marine pollutant: -
- 14.5 Inland navigation (ADNR): N.A.
- 14.6 Air freight (ICAO): N.A.
Instruction "passenger": -
Instruction "cargo": -
- 14.7 Other information: not restricted for any mode of international transport

15. Regulatory information

Labelling in accordance with EC directives 67/548/EEC and 88/379/EEC

NOT APPLICABLE

16. Other information

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
* = INTERNAL CLASSIFICATION

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