

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

1.1 Product identifier

Trade name

MAP

Identification numbers

CAS no. 7722-76-1
EC no. 231-764-5

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

Relevant identified uses of the substance or mixture

Manufacture of Ammonium dihydrogenophosphate (MAP)

Formulations and synthesis (All types)

Formulations of fertilizers including blending, packaging, dilution, loading/unloading and adding micronutrients and/or additive

Manufacture of solid/ liquid fertilizers

Use as Flame retardant agent (UCN B45000) for textiles, furnitures, wood, paper, matches, plastics & cellulosics

Manufacture of fire extinguisher powder

Nutrient for yeast and in many fermentation processes in food and pharmaceutical sectors (UCN 42300)

manufacture of frits for enamel (UCN G15000)

binder in refractory bricks, tiles [UCN code B20300: Other binding agents]

Flux for soldering for the manufacture of metal products, electronic and electrical equipement

Dental Investment Casting Material

Manufacture of washing and cleaning products

Use as laboratory chemical

Manufacture of Ammonium polyphosphates , Flame retardants, Paints and Coatings, Wild Fire eraser

use of fire extinguisher powder

Use of solid fertilizers NPK/PK: Surface spreading or incorporation at open fields and/or forest fertilization, fertilization of amenity (parks, public lawns, sport fields golf courses)

Use of liquid fertilizers: Surface spreading or incorporation through pipes at open field, Fertilization of amenity (parks, public lawns, sport fields, golf courses), greenhouse application, fertigation,

Dilution of liquid soluble fertilizers

Use of detergents and maintenance products

Uses advised against

None known

1.3 Details of the supplier of the safety data sheet

Address

Ameropa AG
Rebgasse 108
CH-4102 Binningen

Telephone no. +41 61 301 2711

Fax no. +41 61 302 9863

Advice on Safety Data Sheet

info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification information

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP).

This product does not meet the classification and labelling criteria given in the Dangerous Preparations Directive 67/548/EC (DSD)

2.2 Label elements

Not relevant

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical characterization

Substance name ammonium-dihydrogenorthophosphate

Identification numbers

CAS no. 7722-76-1

EC no. 231-764-5

3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

After ingestion

Rinse out mouth and give plenty of water to drink. Summon a doctor immediately. Never give anything by mouth to an unconscious person.

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

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Unsuitable extinguishing media

No data available.

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Nitrogen oxides (NO_x); Ammonia (NH₃); Phosphorus oxides

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation.

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For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Send in suitable containers for recovery or disposal.

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation, if necessary). Avoid the formation and deposition of dust.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not inhale dust. Remove soiled or soaked clothing immediately.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Store product in closed containers.

Advice on storage assembly

Do not store together with: sodium hypochlorite and calcium hypochlorite

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL und PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	ammonium-dihydrogenorthophosphate			7722-76-1 231-764-5	
	dermal	Long term (chronic)	systemic	34,7	mg/kg/day
	inhalational	Long term (chronic)	systemic	6,1	mg/m ³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	ammonium-dihydrogenorthophosphate			7722-76-1 231-764-5	
	oral	Long term (chronic)	systemic	2,1	mg/kg/day
	dermal	Long term (chronic)	systemic	20,8	mg/kg/day
	inhalational	Long term (chronic)	systemic	1,8	mg/m ³

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PNEC values

No	Substance name	CAS / EC no	
	ecological compartment	Type	Value
1	ammonium-dihydrogenorthophosphate		7722-76-1 231-764-5
	water	fresh water	1,7 mg/l
	water	marine water	0,17 mg/l
	sewage treatment plant	-	10 mg/l

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Protective gloves (EN 374); Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour	
solid	
white	
Odour	
odourless	
Odour threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
No data available	
Melting point / melting range	
Value	197 °C
Source	CSR

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Decomposition point / decomposition range

No data available

Flash point

No data available

Auto-ignition temperature

No data available

Oxidising properties

No data available

Explosive properties

No data available

Flammability (solid, gas)

No data available

Lower flammability or explosive limits

No data available

Upper flammability or explosive limits

No data available

Vapour pressure

Value	0,0014 Pa
Reference temperature	7 °C
Source	CSR

Vapour density

No data available

Evaporation rate

No data available

Relative density

No data available

Density

Value	1,81
Reference temperature	20 °C
Source	CSR
Remarks	Relative density

Solubility in water

Value	> 100 g/l
Reference temperature	20 °C
Source	CSR

Solubility(ies)

No data available

Partition coefficient: n-octanol/water

No data available

Viscosity

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat

10.5 Incompatible materials

Sodium hypochlorite

10.6 Hazardous decomposition products

Ammonia; Phosphorus oxides; Nitrous oxides (NOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity	
LD50	> 2000 mg/kg
Species	rat
Method	OECD 425
Source	CSR

Acute dermal toxicity	
LD50	> 5000 mg/kg
Species	rat
Method	OECD 402
Source	CSR

Acute inhalational toxicity	
LC50	> 5 mg/l
Duration of exposure	4 h
Species	rat
Reference substance	CAS 7783-28-0
Method	OECD 403
Source	CSR

Skin corrosion/irritation	
Species	rabbit
Method	OECD 404
Source	CSR
Evaluation	non-irritant

Serious eye damage/irritation	
Species	rabbit
Method	OECD 405
Source	CSR
Evaluation	non-irritant

Respiratory or skin sensitisation	
Route of exposure	Skin
Species	mouse
Reference substance	CAS 7783-28-0
Method	OECD 429
Source	CSR
Evaluation	non-sensitizing

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Germ cell mutagenicity	
Type of examination	In vitro bacterial reverse mutation assay
Method	OECD 471
Source	CSR
Evaluation	negative
Reproduction toxicity	
Route of exposure	900
	>= 1500 mg/kg/d
Type of examination	NOAEL
Species	rat
Reference substance	CAS 7783-28-0
Source	CSR
Carcinogenicity	
No data available	
STOT-single exposure	
No data available	
STOT-repeated exposure	
No data available	
Aspiration hazard	
No data available	

SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity	
LC50	> 85,9 mg/l
Duration of exposure	96 h
Species	Oncorhynchus mykiss
Method	OECD 203
Source	CSR
Daphnia toxicity	
EC50	1790 mg/l
Duration of exposure	72 h
Species	Daphnia carinata
Reference substance	CAS 8030-27-1
Source	CSR
Algae toxicity	
EC50	> 100 mg/l
Duration of exposure	72 h
Species	Pseudokirchneriella subcapitata
Reference substance	CAS 7783-28-0
Method	OECD 201
Source	CSR

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Bacteria toxicity

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information

Do not discharge into the drains or waters and do not store on public depositories.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks

Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

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15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Department issuing safety data sheet

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