SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 25-Jul-2021 **Supersedes Date:** 18-Dec-2019 **Revision Number** 10.2

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

1.1. Product identifier

Product Name MAP

Product Code(s) 3034-1

REACH registration number 01-2119488166-29

Chemical name Phosphoric Acid, Monoammonium Salt

Synonyms Nova MAP
Ammonium dihydrogen phosphate
Monoammonium phosphate

Pure substance/mixture Substance

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

Recommended use Fertilizer
Binder
Laboratory chemicals
Food additive
Feed additives
Processing aid
Cosmetic additive
Industrial intermediate
Flame retardant

1.3. Details of the supplier of the safety data sheet

Supplier
ICL Europe Cooperatief U.A.
Prinsenhof Building Koningin Wilhelminaplein 30
1062 KR, Amsterdam, Netherlands
Tel: +31 20 800 5 867;
Fax:+31 20 800 5 805
e-mail:msdsinfo@icl-group.com

1.4. Emergency telephone number

Europe +31-20-5815100
(24 hours a day, 365 days a year)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
Hazard statements
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.3. Other hazards

This product contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent andvery bioaccumulative (vPvB) at concentrations of >= 0.1%.

Endocrine Disruptor Information

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Ammonium dihydrogenorthophosphate	-	-

Chemical name	Endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4)
Ammonium dihydrogenorthophosphate	-

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	EC No	Weight-%	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	REACH registration number
Ammonium dihydrogenorthophosphate 7722-76-1	231-764-5	100	-	-	-	-	-	01-2119488166-29

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
No information available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Ammonium dihydrogenorthophosphate 7722-76-1	5750	7940			

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a

physician.

Ingestion Rinse mouth thoroughly with water. Get medical attention if symptoms occur. NOTE: Never give an unconscious person anything to drink.

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

Symptoms No information available.

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

Note to physicians Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical May emit toxic fumes under fire conditions.

Hazardous combustion products NOx. Ammonia. Phosphorus oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid generation of dust.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information. Should not be released into the environment.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid generation of dust. Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. away from incompatible materials (see Section 10).

7.3. Specific end use(s)

Specific use(s) No specific requirements.

Identified Uses
Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	-	-

Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	-	-

Chemical name	France	Germany	Germany MAK	Greece	Hungary
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	-	-

Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	-	-

Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	-	-

Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	-	-

Chemical name	Sweden	Switzerland	United Kingdom
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-

Biological occupational exposure limits No relevant information available.

DNELs for workers

Chemical name	Acute - local effects	Acute - systemic effects	Long term Local effects	Long term systemic effects
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	5.9 mg/m³ (inhalation) 8.3 mg/kg bw/day (dermal)

DNELs for the general population -

Chemical name	Acute - local effects	Acute - systemic effects	Long term Local effects	Long term systemic effects
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	0.42 mg/kg bw/day (oral) 4.17 mg/kg bw/day (dermal) 1.45 mg/m³ (inhalation)

Predicted No Effect Concentration (PNEC)

Chemical name	Water	Sediment	Soil	Impact on Sewage Treatment	Oral
Ammonium dihydrogenorthophosphate 7722-76-1	-	-	-	10 mg/l	-

8.2. Exposure controls

Engineering controls Eyewash stations
Showers
Ventilation systems

Personal protective equipment

Eye/face protection Chemical safety goggles.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required

Hand protection Protective gloves

Skin and body protection Wear suitable protective clothing.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid
Appearance crystalline
Powder
Color white
Odor None.

Odor threshold Not determined

Property	Values	Remarks • Method
Melting point / freezing point	197 °C	
Boiling point / boiling range	Not Applicable .	None known
Flammability (solid, gas)	Not flammable .	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	Not self-ignitable
Decomposition temperature	>197 °C	
pH	4.5	
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	
Water solubility	370 g/l @ 25°C	
Solubility(ies)	Practically not soluble @ 25 °C	
Partition coefficient	No data available	None known
Vapor pressure	0.00147Pa (20°C)	
Relative density	1.81 g/cm³	None known
Bulk density	1100 kg/m³	
Liquid Density	No data available	
Vapor density	No data available	Not determined
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not applicable

Explosive properties Product does not present an explosion hazard

Not flammable .

Self-reactive substances and mixtures >197 °C

Oxidizing properties The structure indicates non oxidizing properties

Organic peroxides >197 °C

9.2.2. Other safety characteristics

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable under normal conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Reacts with strong acids and alkali. Reacts with alkalis releasing ammonia. Reacts with oxidizing agents.

10.4. Conditions to avoid

Conditions to avoid To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Incompatible materials Oxidizing agents, acids and alkalis. Copper and copper alloys.

10.6. Hazardous decomposition products

Hazardous decomposition products NOx. Ammonia. Phosphorus oxides.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium dihydrogenorthophosphate	>2000 mg/kg (Rat)	>5000 mg/kg (Rat)	>5 mg/L (Rat) 4h (read-across)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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.

Respiratory or skin sensitization Based on available data, the classification criteria are not met.

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

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	European Union
Ammonium dihydrogenorthophosphate	-	-	-	-

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 Not expected.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No endocrine disrupting properties are known.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ammonium dihydrogenorthophosphate	EC50: >100 mg/l (72h, Pseudokirchneriella subcapitata, read-across)	LC50: >100 mg/l (96h, Oncorhynchus mykiss)	EC50: >100 mg/l (3h, Activated sludge, read-across)	LC50: 1790 mg/l (72h, Daphnia carinata, read-across)

12.2. Persistence and degradability

Persistence and degradability Not relevant for inorganic salts.

12.3. Bioaccumulative potential

Bioaccumulation Not expected to bioaccumulate

Component Information

Chemical name	Partition coefficient
Ammonium dihydrogenorthophosphate	<0.000011 mmHg

12.4. Mobility in soil

Mobility in soil Not expected to adsorb on soil.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Ammonium dihydrogenorthophosphate	PBT assessment does not apply

12.6. Endocrine disrupting properties

Endocrine disrupting properties No endocrine disrupting properties are known.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA

14.1 UN number or ID number Not regulated
14.2
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not Applicable
14.6 Special precautions for user
Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
14.2
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5
14.6 Special precautions for user
Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments No information available

ADR/RID/ADN

14.1 UN number or ID number Not regulated
14.2
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not Applicable
14.6 Special precautions for user
Special Provisions None

SECTION 15: Regulatory information

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

Chemical name	French RG number	Title
Ammonium dihydrogenorthophosphate 7722-76-1	-	-

Water hazard class (WGK) slightly hazardous to water (WGK 1)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This

product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Ammonium dihydrogenorthophosphate - 7722-76-1	-	-

Persistent Organic Pollutants

Not applicable

Chemical name	Persistent Organic Pollutants per (EC) 2019/1021 - Annex Number
Ammonium dihydrogenorthophosphate - 7722-76-1	-

Chemical name	European Export/Import Restrictions per (EC) 689/2008 - Annex Number
Ammonium dihydrogenorthophosphate - 7722-76-1	-

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Ammonium dihydrogenorthophosphate - 7722-76-1	-	-

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Chemical name	Ozone depletion potential (ODP)	Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Ammonium dihydrogenorthophosphate - 7722-76-1	-	-

Chemical name	Plant protection products directive (91/414/EEC)
Ammonium dihydrogenorthophosphate - 7722-76-1	-

Chemical name	EU - Biocides
Ammonium dihydrogenorthophosphate - 7722-76-1	-

Chemical name	EU - Water Framework Directive (2000/60/EC)
Ammonium dihydrogenorthophosphate - 7722-76-1	-

Chemical name	EU - Environmental Quality Standards (2008/105/EC)
Ammonium dihydrogenorthophosphate - 7722-76-1	-

International Inventories

GHS hazardous component CAS registry numbers appearing in section 3 may differ from substances appearing in section 15 due to country or regional chemical inventory coverage requirements, however, remain in compliance with the inventory
Products that are used as food additives are exempt from listing in international chemical inventories

For further details on the regulatory status for this product in a specific country, please send your inquiry to the following email address: msdsinfo@icl-group.com

TSCA	Listed or exempted
DSL	Listed or exempted
ENCS	Listed or exempted
IECSC	Listed or exempted
KECL	Listed or exempted
PICCS	Listed or exempted
TCSI	Listed or exempted
AIIC	Listed or exempted
NZIoC	Listed or exempted
NCI	Listed or exempted
NSQ	Listed or exempted
TECI	Listed or exempted

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substance Inventory
AIIC - Australian Inventory of Industrial Chemicals
NCI - Vietnam National Chemicals Inventory
NSQ - Mexico National Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TECI - Thailand Inventory FDA Existing Chemicals

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, we make no representations as to the completeness or accuracy thereof. Information is supplied to you upon the condition that the persons receiving the information will make their own determination as to its safety and suitability for their purposes prior to use. In no event will we be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information. In addition, we shall not be

liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

End of Safety Data Sheet