

Safety Data Sheet

Monoammonium Phosphate (M.A.P.)

SDS Revision Date:

02/21/2025

1. Identification

1.1. Product identifier

Product Identity

Monoammonium Phosphate (M.A.P.)

Alternate Names

ACL-003, Ammonium Phosphate Monobasic,
Monoammonium Phosphate (M.A.P.)

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

Intended use

See Technical Data Sheet.

Application Method

See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name

JIANGSU KHONOR CHEMICALS CO.,LIMITED
Rm 1902 Easey Comm Bldg, 253-261, Hennessy RD Wanchai HK

Emergency

24 hour Emergency Telephone No.

86-518-85108858

Customer Service:

0086-19851820538

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Ox. Gas 1;H270

May cause or intensify fire; oxidizer.

Acute Tox. 4;H332

Harmful if inhaled.

Skin Irrit. 2;H315

Causes skin irritation.

Eye Irrit. 2;H319

Causes serious eye irritation.

2.2. Label elements



Danger

H270 May cause or intensify fire; oxidizer.

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H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

[Prevention]:

P244 Keep reduction valves free from grease and oil.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P332+313 If skin irritation occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362+364 Take off contaminated clothing and wash it before reuse.

P370+376 In case of fire: Stop leak if safe to do so.

[Storage]:

P403+235 Store in a well ventilated place. Keep cool.

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the Controlled Products Regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Phosphoric acid, monoammonium salt CAS Number: 0007722-76-1	85	Not Classified	[1]
F2 CAS Number: 0007782-41-4	1.55	Press. Gas; H280 Ox. Gas 1; H270 Acute tox. 2; H330 Skin Corr. 1A; H314	[1][2]
Iron CAS Number: 0007439-89-6	1.45	Not Classified	[1]
Sulfur CAS Number: 0007704-34-9	1.25	Skin Irrit. 2; H315	[1]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

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4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Overview	At high dust concentrations, irritation of eyes, skin, and mucous membranes by chemical or mechanical action may occur. Preexisting respiratory disease including asthma and emphysema.
Inhalation	Harmful if inhaled.
Eyes	Causes serious eye irritation.
Skin	Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Use media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: If heated to the point of decomposition, oxides of nitrogen and phosphorus may be released.

Keep reduction valves free from grease and oil.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus (positive pressure, if available) and full protective clothing.

ERG Guide No. ---

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

EMERGENCY ACTION: Prevent large quantities from contact with waterways or vegetation.

SMALL SPILLS: If uncontaminated, recover and reuse as product. Consult with environmental regulatory agencies for acceptable disposal procedures.

LARGE SPILLS: Consult with environmental regulatory agencies for acceptable disposal procedures if product cannot be recovered and reused.

7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: May be corrosive to iron and mild steels, aluminum, zinc and copper.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0007439-89-6	Iron	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007704-34-9	Sulfur	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007722-76-1	Phosphoric acid, monoammonium salt	OSHA	No Established Limit

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0007782-41-4	F2	ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
		OSHA	TWA 0.1 ppm (0.2 mg/m3)
		ACGIH	TWA: 0.1 ppm
		NIOSH	TWA 0.1 ppm (0.2 mg/m3)
		Supplier	No Established Limit

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m3 (50 mppcf*) TWA, ACGIH 10 mg/m3.

8.2. Exposure controls

Respiratory	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
Eyes	Protective safety glasses recommended
Skin	No protection required. If irritation occurs, long sleeves and impervious gloves should be worn.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

9. Physical and chemical properties

Appearance	Granules with colour ranging from gray to green, tan, brown or black. Solid
Odor	No odor or slight odor of ammonia.
Odor threshold	Not determined
pH	4.2
Melting point / freezing point	190°C
Initial boiling point and boiling range	Decomposes at 150°C
Flash Point	Not Measured
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not Applicable
Vapor Density	Not Measured

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Specific Gravity (H₂O=1) 1.893
Solubility in Water Soluble
Partition coefficient n-octanol/water (Log K_{ow}) Not Measured
Auto-ignition temperature Not Measured
Decomposition temperature Not Measured
Viscosity (cSt) Not Measured
Density 56 - 64 (bulk) lbs/cu. ft.

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

May be corrosive to iron and mild steels, aluminum, zinc and copper.

10.6. Hazardous decomposition products

If heated to the point of decomposition, oxides of nitrogen and phosphorus may be released.

11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Phosphoric acid, monoammonium salt - (7722-76-1)	No data available	No data available	No data available	No data available	No data available
F2 - (7782-41-4)	No data available	No data available	No data available	No data available	No data available

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Iron - (7439-89-6)	30,000.00, Rat - Category: NA	No data available	No data available	No data available	No data available
Sulfur - (7704-34-9)	8,437.00, Rat - Category: NA	5,587.00, Guinea Pig - Category: NA	No data available	No data available	No data available

Carcinogen Data

CAS No.	Ingredient	Source	Value
0007439-89-6	Iron	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007704-34-9	Sulfur	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007722-76-1	Phosphoric acid, monoammonium salt	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007782-41-4	F2	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

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12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Phosphoric acid, monoammonium salt - (7722-76-1)	Not Available	Not Available	Not Available
F2 - (7782-41-4)	Not Available	Not Available	Not Available
Iron - (7439-89-6)	Not Available	Not Available	Not Available
Sulfur - (7704-34-9)	866.00, Danio rerio	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable

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14.4. Packing group Not Applicable Not Applicable Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No;

14.6. Special precautions for user

No further information

15. Regulatory information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

Components are DSL Listed, NDSL Listed and/or are exempt from listing.

WHMIS Classification D2B C

16. Other information

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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H270 May cause or intensify fire; oxidizer.

H280 Contains gas under pressure; may explode if heated.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H330 Fatal if inhaled.

The information contained herein is furnished without warranty of any kind. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Users should make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

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