



Chemical Safety Data Sheet

Section 1 IDENTIFICATION

GHS Product identifier: Aluminum Hypophosphite

Other means of identification: /

Recommended use of the chemical and restrictions on use: This material can be used as flame retardant.

Supplier's details: Shandong Chenxu New Material Co., Ltd.

Address: South of Innovation Street East Extension, Hi -Tech Zone, Yucheng, Dezhou City, Shandong, China

Emergency phone number: +86 - 531 - 87978111

Section 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Flammable solids - Category 1

Chronic aquatic toxicity - Category 3

GHS Label elements, including precautionary statements:



Signal word: Danger

Hazard statement(s): Flammable solid. Harmful to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/ventilating/lighting/...] equipment. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection...Avoid release to the environment.

Response:

In case of fire: Use water spray, foam or dry powder to extinguish.

Storage: Store in a shady & cool, dry, well-ventilated warehouse. after opening the packaging, unused material remaining must be resealed tightly.

Storage areas must be kept away from heat sources, steam pipes, heating systems, etc.

Must be stored separately from oxidizing agents (such as peroxides, chlorates, permanganates, nitrates, concentrated acids, etc.).

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS



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Chemical Name	CAS No.	Concentration%
Aluminum Hypophosphite	7784-22-7	100%

Section 4 FIRST AID MEASURES

Description of necessary first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If ingestion: Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed: /

Indication of immediate medical attention and special treatment needed, if necessary: /

Section 5 FIREFIGHTING MEASURES

Suitable extinguishing media

Suitable Fire Extinguishing Media

Suitable extinguishing agents: Dry powder, dry sand, or carbon dioxide may be used for fire suppression.

Unsuitable extinguishing agents: Never use water (including water-based foam extinguishing agents) to extinguish fires caused by aluminum hypophosphite.

Special Hazards

When heated in a fire, it decomposes, releasing toxic fumes and gases such as phosphine and other phosphorus oxides.

Firefighting Precautions and Protective Measures:

Evacuate personnel to a safe area. Firefighters must wear self-contained breathing apparatus (SCBA) and full firefighting protective gear to ensure personal safety. Non-essential personnel should immediately evacuate to the upwind direction. Ensure adequate ventilation, especially in enclosed spaces.

Section 6 ACCIDENTAL RELEASE MEASURES

Personal Protection Measures, Protective Equipment, and Emergency Response Procedures

Evacuate personnel to a safe area. Ensure adequate ventilation, especially in confined spaces. Eliminate all ignition sources. Avoid skin contact, eye contact, and inhalation of vapors. Use personal protective equipment as recommended in Section 8.

Environmental Protection Measures

Notify local authorities if a large spill cannot be contained. Prevent entry into waterways, sewers, basements, or confined spaces.

Methods for Containment and Cleanup of Spilled Chemicals and Disposal Materials Used

Pick up mechanically and place in suitable containers for disposal.

Preventive Measures Against Secondary Hazards

Avoid generating dust. Prevent further leakage or spillage where safe and practicable.

Section 7 HANDLING AND STORAGE



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Handling and Use

Operate in accordance with good industrial hygiene and safety practices. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes, or clothing. Contaminated clothing must be washed before reuse. Take precautions against electrostatic discharge. Avoid generating dust. Do not inhale dust/fumes/gas/mist/vapors/spray. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Use personal protective equipment as recommended in Section 8.

Storage

Keep container tightly closed and store in a dry, cool, well-ventilated area. Keep away from heat sources. Store in accordance with local regulations.

Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: /

Appropriate engineering controls: Close strictly and provide sufficient local exhaust.

Individual protection measures

Eye/face protection: Wear a protective mask.

Skin protection: Wear normal protective clothing.

Respiratory protection: Air respirators should be worn during emergency rescue or evacuation.

Thermal hazards: /

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid powder.
Color	White.
Odor	Weak Odor
Melting point/freezing point	1650°C
Boiling point or initial boiling point and boiling range	/
Flammability	Flammable
Lower and upper explosion limit/flammability limit	/
Flash point	/
Auto-ignition temperature	275°C
Decomposition temperature	330°C
pH	3.0-5.0
Kinematic viscosity	/
Solubility	Insoluble in water.
Partition coefficient: n-octanol/water (log value)	/
Vapour pressure	/
Density and/or relative density	/
Relative vapour density	/
Particle characteristics	/

Section 10 STABILITY AND REACTIVITY



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Stability

Stable under normal conditions

Possibility of Hazardous Reactions

Will not occur during normal handling

Conditions to Avoid

Heat sources, flames, and sparks

Incompatible Materials

Strong oxidizing agents

Hazardous Decomposition Products

Be vigilant against the generation of phosphine (PH_3), a highly toxic and flammable gas.

Section 11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Inhaled, swallowed, skin, eyes.

Symptoms related to the physical, chemical and toxicological characteristics: /

Acute health effects:

Inhalation can cause cough, throat irritation.

Ingestion can cause symptoms such as nausea, vomiting and abdominal pain.

Eyes contact can cause redness and irritation.

Skin contact can cause redness and irritation.

Chronic health effects: Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.

Numerical measures of toxicity (such as acute toxicity estimates):

LD50(oral, rat): >2000 mg/kg

LD50(dermal, rabbit): >2000 mg/kg

Section 12 ECOLOGICAL INFORMATION

Ecotoxicity:

Endpoint	Test Duration (hr)	Species	Value
EC50	48	Daphnia magna	> 100mg/L
LC50	96	Fish	> 100mg/L
EC50	72	Algae or other aquatic plants	> 100mg/L
EC50	96	Algae or other aquatic plants	15.4mg/l

Persistence and degradability: /

Bioaccumulative potential: /

Mobility in soil: /

Other adverse effects: /

Section 13 DISPOSAL CONSIDERATIONS

Disposal methods: Burial in a land-fill specifically licensed to accept chemical. Reuse of broken container is forbidden.

Section 14 TRANSPORT INFORMATION



SHANDONG CHENXU NEW MATERIAL CO., LTD.

UN number: 3178

UN proper shipping name: INORGANIC FLAMMABLE SOLID, N.O.S.

Transport hazard class(es): 4.1

Packing group, if applicable: II.

Environmental hazards: /

Section 15 REGULATORY INFORMATION

Regulations: This safety data sheet is in compliance with the following national standards: GB/T 16483-2008, GB 13690-2009, GB 18218-2018, GB 15258-2009, GB 6944-2012, GB 190-2009, GB/T 191-2008, GB 12268-2012, GB/T 15098-2008, GBZ 2.1-2019, GBZ 2.2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation.

Section 16 OTHER INFORMATION

References	UN Recommendations on the Transport of Dangerous Goods Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
Form Date	26-July-2025

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.