

Material Safety Data Sheet

Section 1 Chemicals and Company Identification

Chemical Name: 1-Hydroxy Ethylidene-1,1-Diphosphonic Acid (HEDP)

CAS No.: 2809-21-4

Uses of product: Cooling water treatment, scale and corrosion inhibitor, chelating and sequestering agent, etc.

Company name: JINING GREEN MOUNTAIN CHEMICAL CO.,LTD.

Address: Jining, Shandong Province, China

For emergency or additional info. +86-537-227 5079

Section 2 Hazards Identification

Classification

GHS risk Category:

Corrosive to Metals: Category 1

Acute toxicity, oral: category 4

Severe eye damage/eye irritation: category 1

Skin corrosion/irritation: category 2

Pictogram:



Signal: Danger

Hazard statements

H290 May be corrosive to metals

H302 Harmful if swallowed

H312 Harmful in contact with skin

H315 Causes skin irritation

H318 Causes serious eye damage

Precautionary statements -Prevention:

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements -Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER/ doctor/if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

Precautionary Statements - Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P406: Store in a corrosive resistant container with a resistant inner liner.

Precautionary Statements - Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 Composition/Information on Ingredients

Chemical name	CAS No.	Component content
1-Hydroxy Ethylidene-1,1-Diphosphonic Acid	2809-21-4	not less than 60.0%
Water	7732-18-5	not more than 40.0%

Section 4 First Aid Measures

Skin contact: Remove contaminated clothing and rinse skin thoroughly with water. Seek medical advice.

Eye contact: separate eyelid, flush with flowing water or normal saline. Seek medical attention immediately.

Ingestion: Gargle, do not induce vomiting. Seek medical attention immediately.

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

Advice to protect the rescuer: Move the patient to a safe location. Consult your doctor. Show this chemical safety specification to the on-site doctor.

Section 5 Fire Fighting Measures

Fire extinguishing agent:

Use water spray, dry powder, foam or carbon dioxide extinguishing agent to extinguish the fire.

Avoid the use of direct running water, which may cause splashing of flammable liquids and spread the fire.

Special risk: no data available.

Fire-fighting Precautions and Protective measures:

Fire fighters shall wear respirators and full - body fire suits to put out the fire upwind. Remove the container from the fire as much as possible into an open area.

Evacuate immediately if containers in the fire are discolored or emit sound from the safety relief device.

Isolate the scene of the accident and keep out irrelevant personnel. Collect and treat fire water to prevent environmental pollution.

Section 6 Accidental Release Measure

Personal precautions

Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Eliminate all ignition sources.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7 Handling and Storage

Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section 8 Exposure Controls/Personal Protection

Engineering Controls: Provide safe shower and eye washing facilities. Mechanical exhaust required. Emergency evacuation routes and necessary evacuation areas shall be set up.

Respiratory protection: When the concentration in the air exceeds the limit, use a full-face supplied air respirator.

Eye protection: Goggles or Safety glasses with side-shields

Hand Protection: Wear impervious chemical resistant gloves.

Body protection: Protective work clothing.

Section 9 Physical and Chemical Properties

Appearance and appearance: Clear liquid

Odour: No data available

PH value: not more than 2.0 (1% aqua solution)

Melting point/freezing point (°C) : No data available

Boiling point, initial boiling point and boiling range (°C) : No data available

Spontaneous combustion temperature (°C) : No data available

Flash point (°C) : No data available

Decomposition temperature (°C) : No data available

Evaporation rate [butyl acetate in 1] : no data available

Saturation vapor pressure (kPa) : No data available

Flammability (solid, gas) : no data available

Relative density (water in 1) : No data available

Vapor density (air in 1) : no data available

Odor threshold (mg/m³) : No data available
N-octyl alcohol/water partition coefficient (L/G P) : no data available
Solubility: Soluble in water
Viscosity: no data available

Section 10 Stability and Reactivity

Stability: The product is stable under recommended storage and handling conditions.

Possibility of hazardous reactions: Under normal circumstances, no harmful reactions occur.

Conditions to avoid: Excess heat. Ignition sources. Corrodes base metals. Reacts with oxidizing substances, alkalies.

Incompatible substances: Strong oxidizing agents, Strong bases, Strong reducing agents.

Dangerous decomposition products: Gives off hydrogen by reaction with metals. Oxides of carbon and oxides of phosphorous formed under decomposition/fire.

Section 11 Toxicological Information

Acute toxicity:

LD50(rat, Oral) >2000mg/kg;

LC50(rat, Inhalation, 6h) No data available;

LD50(rat, Dermal): No data available;

Skin corrosion/irritation: No data available;

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity – single exposure: No data available

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Section 12 Ecological Information

Ecotoxicity:

Acute toxicity test of fish: No data available

Daphnia acute activity inhibition test: No data available

Algal growth inhibition test: No data available

Toxicity to microorganisms: No data available

Persistence and degradation: no data available.

Bioaccumulation or bioaccumulation: no data available.

Migration in soils: no data available.

Section 13 Disposal Considerations

Waste chemicals: Recycle whenever possible. If it cannot be recycled, incineration is recommended for disposal. This product shall not be disposed of by means of drainage.

Contaminated packaging: Return the container to the manufacturer or dispose of it in accordance with national and local regulations.

Attention to waste: Before disposal of waste should refer to the relevant national and local regulations.

Section 14 Transport Information

UN Number: 3265

UN proper shipping name: Corrosive Liquid, Acidic, Organic, N.O.S.

Classification of transportation hazards: 8

Packaging categories: III

Section 15 Regulatory Information

Listed in the regulations below:

CHINA - China Inventory of Existing Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

ENCS - Japan Existing and New Chemical Substances

EINECS - European Inventory of Existing Commercial Chemical Substances

Section 16 Additional Information

The above information is considered correct but does not claim to be complete and should be used only as a guide. The information in this document is based on our current knowledge and applies to the appropriate safety precautions for the product. It does not represent any guarantee of the performance of the product.

The Company and its subsidiaries shall not be liable for any damage caused by handling or contact with the above products. Please refer to the back of the invoice or packing list for additional terms of sale.