

I - PRODUCT IDENTIFICATION

Product: Stain & Scale Control

Chemical Family:

Formula: C₂H₈O₇P₂

CAS Number: 2809-21-4

Synonyms: etidronic acid, hydroxyethane diphosphonic acid, HEDP, Stain Rust & Scale Control

COMPANY IDENTIFICATION

AllChem Performance Products

6010 NW First Place

Gainesville, FL 32607

Tel: 352-378-9696

II – COMPOSITION, INFORMATION ON INGREDIENTS

Chemical or Common Name:	Exposure Limits OSHA PEL: ACGIH TLV:
--------------------------	---

1) (1-Hydroxyethylidene) diphosphonic acid 2809-21-4 12%	Not available
--	---------------

The remainder of the components comprise proprietary information

III – HAZARDS IDENTIFICATION

Avoid breathing vapors or spray mists. Corrosive to eyes, irritating to the skin and respiratory systems.

Primary Route(s) of Entry:

Ingestion: ()

Inhalation: (X)

Skin Contact: (X)

Eye Contact: (X)

Primary Health Hazards (Acute and Chronic):

Acute:

Ingestion: Ingestion is not expected to be a primary route of exposure.

Inhalation: May be harmful if inhaled. Do not breathe spray mists of the undiluted product. Effects will depend upon solution strength and length of time of exposure.

Skin Contact: Hazardous in case of skin contact (Irritant). Non-corrosive for skin. Non-sensitizer for skin. Skin contact may produce burns. Itching, scaling, redness or occasionally blistering characterizes skin inflammation.

Eye Contact: Very hazardous in case of eye contact (irritant, corrosive).

Redness, watering, and itching characterize inflammation of the eye.

Chronic:

Not toxic to aquatic organisms and not suspected of long term adverse

effects in the aquatic environment.

Carcinogenity Listings:

OSHA: ()
NTP: ()
IARC: ()

Signs & Symptoms of Exposure:

Ingestion:
Inhalation:
Skin Contact:
Eye Contact:

IV – FIRST AID MEASURES

Emergency and First Aid Procedures:

Ingestion: DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one or two glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose, or convulsing, do not give fluids by mouth. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility.

Inhalation: If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing, or is cyanotic, seek medical attention immediately.

Skin Contact: Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a health care professional.

Eye Contact: Flush immediately with copious amounts of tap water or normal saline (minimum of 15 minutes). Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluations.

V – FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD DATA

Flash Point (Closed Cup): >100°C (212°F). (Tagliabue).

Flammable Limits: Not available

LEL:

UEL:

Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.

Special Fire-fighting Procedures: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Unusual Fire and Explosion Hazards:

VI – ACCIDENTAL RELEASE MEASURES

Steps to Be Taken In Case Material Is Spilled or Released:

Important: before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the Handling Precaution sections. Check the Fire and Explosion Data section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of affected areas.

Initially minimize area affected by the spill or leak. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.). Based on the products toxicological and chemical properties, and on the size and location of the spill, or leak access the impact on contaminated environments (e.g. water systems, ground air equipments, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments, minimize adverbs effects on these environments. Determine if Federal, State, and/or local release notification is required. Recover as much of the pure product as possible into appropriate containers. Later determine if this recovered product can be used for its intended purpose. Address clean up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Clay, soil, or commercially available absorbents may be used to recover any material that cannot readily be recovered as pure product. Flushing residual material to an industrial sewer, if present at the site of a spill, or leak incident, may be acceptable is authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials.

VII – HANDLING AND STORAGE

Precautions to Be Taken in Handling and Storage:

Rubber gloves, safety glasses or goggles, body protective clothing and shoes are required. Eyewash fountains in the work place are recommended. If splashing can occur, a face shield is advisable. Provide dilution ventilation to control vapor and/or mist level. When misting may occur in the work area, a NIOSH/MSHA approved respirator may be required. Use a respirator approved for the material and level of exposure. A comprehensive respiratory protection program is needed when respirators must be used. The handling precautions for this product are based on the characteristics of the neat product unless otherwise specified.

Other Precautions:

VIII – EXPOSURE CONTROLS/ PERSONAL PROTECTION

Respiratory Protection: When misting may occur in the work area, a NIOSH/MSHA approved respirator may be required. Use a respirator approved for the material and level of exposure. A comprehensive respiratory protection program is needed when a respirator must be used.

Ventilation: Provide dilution ventilation to control vapor and/or mist level.

Local Exhaust:

Mechanical Exhaust:

Other Protective Clothing or Equipment: Rubber gloves, safety glasses or goggles, body protective clothing and shoes are required.

Work/ Hygienic Practices: Eye wash fountains in the work place are recommended.

IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: >100°C (212°F)

Vapor Pressure (mm Hg): 17 mm of Hg (@ 20°C)

Vapor Density (Air=1): 1.46 g/cm³ @ 20°C (68°F)

Solubility in Water: Soluble in cold or hot water.

Appearance and odor: Clear, colorless liquid, Characteristic odor

Specific Gravity (H₂O=1):

Percent volatile by volume:

Melting Point: Not available.

Evaporation Rate:

pH (Neat): Not available

pH (100 ppm in water): Not available

o/w Partition Coefficient: Not available

Oxidizing/Reducing Properties: Not available

Viscosity: Dynamic: 64 cP

Additional pH Information: pH (1% solution)= 2.0

X – STABILITY AND REACTIVITY

Stability: Unstable Stable under normal conditions of use and storage.

Conditions to Avoid:

Incompatibility: Strong oxidizers, strong bases.

Hazardous Decomposition or By-Products: Oxides of both phosphorous and carbon; acids of phosphorous..

Hazardous Polymerization: May Occur Will Not Occur

Conditions to Avoid:

XI - TOXICOLOGICAL INFORMATION

Acute Toxicity:

Acute Oral: LD50=2000 mg/kg Rat

Acute Dermal: LD50=10000 mg/kg rabbit

Irritant/Sensitization Effects: Very hazardous in case of eye contact (irritant, corrosive). Redness, watering, and itching characterize inflammation of the eye.

Hazardous in case of skin contact (irritant). Non-corrosive for skin. Non-sensitizer for skin. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or occasionally, blistering.

May be harmful if inhaled, Do not breathe spray mists of the undiluted product.
Effects will depend upon the solution strength and length of time of exposure.
Target Organ Toxicity: May cause damage to the following organs; Blood, gastrointestinal tract, upper respiratory tract, skin, eyes, bones.
Reproductive and Development Toxicity:
Carcinogenicity: Not shown as a carcinogen by OSHA, IARC, or NTP.
Mutagenicity:
Other Health effects: None known.

XII – ECOLOGICAL INFORMATION

Aquatic Toxicity: Non-toxic to aquatic organisms and not suspected to long-term adverse effects in the aquatic environments.

LC50=>368 mg/l 96 hours Rainbow trout

LC50=527 mg/l 48 hours Daphnia magna

Avian Toxicity:

ENVIRONMENTAL HAZARDS (PR Notice 93-10)

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water board or Regional Office of the EPA.

XIII – DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Follow Federal, State, and local regulations governing the disposal of waste materials. Contaminated Materials: Determine if waste containing this product can be handled by available industrial effluent system or other on-site waste management unit. If off-site management is required, contact a company experienced in industrial waste management.

XIV - TRANSPORTATION DATA

U.S. Department of Transportation - 49 CFR

Proper Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S.,
((1- Hydroxyethylidene)diphosphonic Acid)

Hazard Class/Division Number: 8

ID Number: UN3265

Packing Group: II
Label Required:
Placard Required:
Marine Pollutant:
Emergency Telephone Number: Chemtrec 800-424-9300
ERG No: 153

International Maritime Organization - IMDG

Proper Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S.,
((1- Hydroxyethylidene)diphosphonic Acid)
Hazard Class/Division Number: 8
ID Number: UN3265
Packing Group: II
Label Required:
Placard Required:
Marine Pollutant:
Emergency Telephone Number: Chemtrec 202-483-7616 [call collect]
EmS No. 8-15, MFAG Table No. 760,4.3, ERG: 153, Hazmat Code 4931466

IATA

Proper Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S.,
((1- Hydroxyethylidene)diphosphonic Acid)
Hazard Class/Division Number: 8
ID Number: UN3265
Packing Group: II
Label Required:
Placard Required:
Marine Pollutant:
ERG No: 153

Unless otherwise stated, the shipping information provided above applies only to non-bulk containers of this product. Proper shipping name and general shipping information may vary depending on packaging and mode of shipment. If any alterations of packaging, product, or mode of transportation is further intended, different shipping information, including but not limited to proper shipping name, RQ designation, and labeling may apply.

XV - REGULATORY INFORMATION

SARA Title III:

Section 302 Extremely Hazardous Substances List: No components of this product are listed.

Section 312 Hazard Category: Immediate (Acute) Health Hazard

Section 313 Toxic Chemical List: No components of this product are present above the *de minimus* levels

CERCLA: No components of this product are present above the *de minimus* levels.
RCRA Listed Hazardous Waste: When disposed of, this product may be regulated as a RCRA Hazardous Waste with the characteristic of corrosivity due to the pH of the neat material.

CWA Listed Substances: No components of this product are listed.

FDA: This product is approved under the following FDA (21 CFR) section: 173.310.

TSCA Applicability: All components are listed on the TSCA Inventory.

FIFRA: This product is not a registered pesticide.

HMIS/NPCA Rating:

Health: 2 Flammability: 1 Reactivity: 1

NFPA Ratings:

Health: 2 Flammability: 1 Reactivity: 1

State Regulations:

Various State Right to Know Acts: Non-proprietary hazardous chemicals are listed in Section II of this MSDS.

XVI - ADDITIONAL INFORMATION

ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.

Due to the changing nature of regulatory requirements, the REGULATORY INFORMATION listed in Section XV of this document should NOT be considered all-inclusive or authoritative. International, Federal, State, and Local regulations should be consulted to determine compliance with all required reporting requirements.

The information in this MSDS was obtained from sources, which we believe are reliable. **HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.** The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. **FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.** This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Revised: 02/13/2004.