



North Metal and Chemical Company

1. Company Identification:

Product Name : Tetra Sodium Salt of 1-Hydroxyethylidene 1,1-diphosphonic Acid; Etidronic Acid.
Synonyms : **NorthQuest 6604**; HEDP-Na4
Product Use : Cooling water treatment, corrosion inhibitor, deflocculant, sequestrant textiles, sugar processing, dyes, soaps & detergents, oilfields, peroxide bleaching, and metal surface treatment products.
Manufactured for : **North Metal and Chemical Company**
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In Case of Emergency Call CHEMTREC (24 Hours): 1-800-424-9300 (USA & CANADA)

2. Hazard Identification:

GHS Classification:

Acute Oral Toxicity (Category 4)
Skin Irritation (Category 2)
Serious Eye Damage (Category 2A)

Signal Word: Warning

Pictograms:



Hazard Statements:

H302 : Harmful if swallowed.
H315 : Causes skin irritation.
H319 : Causes serious eye irritation.

Precautionary Statements:

P264 + P265 : Wash all affected body parts thoroughly after handling, do not touch eyes.
P270 : Do not eat, drink, or smoke when using this product
P280 : Wear protective gloves (rubber/PVC)/protective clothing such as apron, boots and safety glasses with side shields.
P301 + P330+ P317 : IF SWALLOWED: Rinse mouth. Get medical help.
P302 + P352 : IF ON SKIN: Wash with plenty of water
P305+ P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P306 + P362 + P364 : IF ON CLOTHING: Take off contaminated clothing and wash before reuse.
P332 + P317 : IF SKIN irritation occurs: Get medical help.
P337 + P317 : IF EYE irritation persists: Get medical help
P501

3. Composition/Information on Ingredient:

Chemical Name : Tetra Sodium Salt of 1-Hydroxy Ethylidene 1,1-diphosphonic Acid, HEDP, Etidronic Acid.
Chemical Family : Organophosphates
Chemical Formula : $C_2H_8Na_4O_7P_2$
EC Number : 223-267-7

| Substance: | CAS Number: | Hazard | Compo. (%) |
|---|-------------|---------------|-------------|
| Tetra Sodium Salt of 1-Hydroxy Ethylidene 1,1-diphosphonic Acid | 3794-83-0 | See Section 2 | 28—32 |
| Water | 7732-18-5 | - | Proprietary |

4. First Aid Measures:

Eyes : Flush skin with running water for at least fifteen minutes. Remove any contact lenses. Get medical aid/attention immediately.

Skin : Remove contaminated clothing. Wash skin with plenty of running water and soap. Get medical attention/aid if irritation persists. Contaminated clothing should be washed before use.

Ingestion : If the product is swallowed, first rinse mouth. Give large amount of water to drink. Call doctor/physician/poison center immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. If a person vomits, place him/her in recovery position. Aspiration may cause pulmonary edema and pneumonitis.

Inhalation : If safe to do so, remove individual from further exposure. Keep warm and at rest. If breathing has ceased, give artificial respiration. Get medical attention/consult a physician.

Medical conditions likely to be aggravated by exposure: Pre-existing disorders of liver and kidney.

Note to Physician : Treat symptomatically.
PPE for first responders : Gloves and safety goggles are highly recommended.

5. Fire Fighting Measures:

Flash Point (°C) : Not available.

Flammable Limits : Not available.

General Hazard : Evacuate personnel downwind in-order to avoid inhalation of irritating and/or harmful fumes and smoke.

Extinguishing Media : **Water spray, alcohol resistant foam, dry chemical powder or carbon dioxide. Appropriate for the surrounding area.**

Hazardous Combustion Products : **Fire may cause evolution of corrosive vapors of phosphorous oxides as well as carbon oxides.**

Fighting Procedures : Hazardous decomposition and combustion products such as phosphorous and carbon oxides can be formed if product is burning. Cool exposed containers with water spray to prevent overheating.

Fire Fighting Equipment : Respiratory and eye protection are required for fire fighting personnel. Full protective equipment (bunker gear) and self-contained breathing apparatus (SCBA) should be used for all fires. Evacuate area and fight fire from safe distance or a protected location. Move fire-exposed containers, if allowable without sacrificing the safety of the firefighters. If possible, firefighters should control run-off water to prevent environmental contamination.

Sensitivity to Static Discharge : Not sensitive.

Sensitivity to Mechanical Impact : Not sensitive.

6. Accidental Release Measures:

Protective Gear for Personnel:

For Small Spill : Safety glasses or chemical splash goggles, chemically resistant gloves (rubber), chemically resistant boots, and any appropriate body protection to minimize direct contact to the skin. Wear respiratory protection to avoid inhaling vapors.

For Large Spill : Triple gloves (rubber and nitrile over latex), chemical resistant suit, boots, hard hat, full face mask/an air purifying respirator (NIOSH approved). Self contained breathing apparatus must be worn in situations where fumigant gas generation and low oxygen levels are a consequence of contamination from the leak.

Spill Clean-up Procedures:

For Small Spill : In the event of a small spill, the spill should be contained with an absorbent pad and placed in a properly labeled waste disposal container immediately. Do not use water for clean up. Do not let chemical/waste enter the environment. Dispose as per instructions in section 13.

For Large Spill : In the event of a large spill, contain the spill immediately and dispose the spill/waste according to state, federal, and local hazardous waste regulation. Do not let chemical/waste enter the environment.

Environmental Precaution

: Water spill: use appropriate containment to avoid run off or release to sewer or other waterways.
Land spill: use appropriate containment to avoid run off or release to ground.
General precaution: remove containers of strong acid, alkali and incompatible materials from the release area.

Release Notes : If spill could potentially enter any waterway, including intermittent dry creeks, contact local authorities.

7. Handling and Storage:

Handling : Use appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area. Handle in a manner consistent with good industrial/manufacturing techniques and practices. Wash hands thoroughly with soap and water after use. Remove contaminated clothing and protective equipment before entering eating areas.

Storage : Store in a cool, dry well-ventilated area. Keep containers closed when not in use. Keep containers isolated from incompatible materials/conditions such as heat and ignition sources. Protect against physical damage and check regularly for leaks.

8. Exposure Controls and Personal Protection:

Engineering Controls : Use appropriate engineering controls to minimize exposure to vapors/dust generated via routine use. Maintain adequate ventilation of workplace and storage areas.

Personal Protective Equipment

: **Eyes and face:** Wear safety glasses with side shields or face shield when handling this material.
Skin: Avoid direct contact with skin. Wear chemically resistant gloves (PVC/rubber), apron, boots or whole chemically resistant bodysuit when handling this product.
Respiratory: Avoid breathing vapor or mist. If risk of overexposure, use NIOSH approved respiratory protection equipment. If used, full face-piece replaces the need for face shield and/or chemical goggles. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.

Work Hygienic Practices : Facilities storing or using this material should be equipped with emergency eyewash, and a safety shower. Good personal hygiene practices should always be followed.

Exposure Limits:

| Substance: | CAS No.: | OSHA STEL | OSHA PEL | ACGIH TLV | ACGIH STEL |
|--|-----------|-----------|----------|-----------|------------|
| Tetra Sodium Salt of 1-Hydroxyethylidene 1,1-diphosphonic Acid | 3794-83-0 | N/A | N/A | N/A | N/A |

9. Chemical and Physical Properties:

| | | | |
|-------------------------|-----------------------------|------------------------------|------------------------|
| Appearance | : Clear Liquid | Lower Explosive Limit | : Not explosive |
| Odor | : Slight caramel odor | Upper Explosive Limit | : Not explosive |
| Odor threshold | : Not available | Vapor Pressure | : 17 mmHg @ 20 °C |
| Color | : Colorless to Pale Yellow | Vapor Density | : No data available |
| pH (1% Solution) | : 10.0 - 12.0 | Specific Gravity | : 1.260 - 1.360 @ 20°C |
| Melting Point | : No data available | Solubility | : Soluble in water |
| Freezing Point | : No data available | Partition Coefficient | |
| Boiling Range | : No data available | n-octanol/water | : Not available |
| Flash Point | : No data available | Auto Ignition Temp. | : Not available |
| Ignition Temp. | : No data available | Molecular Weight | : 293.96 |
| Evaporation Rate | : < 1 (n-Butyl Acetate = 1) | | |

10. Stability and Reactivity:

| | |
|---|---|
| Stability | : The product is stable under recommended storage and handling conditions. |
| Hazardous Polymerization | : Polymerization will not occur. |
| Hazardous Decomposition Products | : Gives off hydrogen by reaction with metals. Oxides of carbon and oxides of phosphorous formed under decomposition/fire. |
| Materials to Avoid | : Corrodes base metals. Reacts with oxidizing substances, alkalies. |
| Conditions to Avoid | : Avoid exposure to extreme temperatures, incompatible materials, & combustible materials. |

11. Toxicological Information:

Acute Oral Toxicity:

LD₅₀ Oral - Rat: N/A

Acute Inhalation Toxicity:

LC₅₀ Inhalation : No data available

Acute Dermal Toxicity:

LD₅₀ Dermal - N/A

LD₅₀ Dermal - N/A

Corrosion/Irritation:

Skin : N/A

Eyes : N/A

Carcinogenicity : IARC, NTP, OSHA, ACGIH: *Not listed*

Mutagenicity : No data available.

Teratogenic Effects : No data available.

Routes of Exposure : Eyes, Skin, Inhalation, Ingestion

Potential Health Effects:

Eyes : Causes serious eye damage.

Skin : Can cause irritation to the skin.

Inhalation : May be harmful if inhaled. Can cause irritation to the respiratory tract and can induce coughing.

Ingestion : Harmful if swallowed. Can cause slight irritation and discomfort.

Sensitization : No data available

Reproductive Effects : No data available.

12. Ecological Information:

All work practices must be aimed at eliminating environmental contamination.

- Biodegradability in Soil/Water** : Not readily biodegradable ($T_{1/2}$: 373 days).
- Bioaccumulative Potential** : No data available.
- Terrestrial Ecotoxicity** : This material can be harmful or fatal to contaminated plants or animals, especially if large volumes are released into the environments.
- Aquatic Ecotoxicity (Acute)**
- Fish Toxicity** : No data available
- Aquatic Invertebrates** : No data available
- Aquatic Plants** : No data available
- Mobility in Soil** : No data available
- Other Adverse Effects** : Do not allow to penetrate into soil, water bodies, or drains

13. Disposal Considerations:

- Disposal Method** : Dispose of waste at an appropriate waste disposal facility according to current applicable laws and regulations.
- For Large Spills** : Contain material and call local authorities for emergency assistance.
- Product Disposal** : Dispose of at a supervised incineration facility or an appropriate waste disposal facility according to current applicable local, state and federal laws, regulations and product characteristics at time of disposal.
- Empty Container** : Contaminated container should be labeled and disposed in accordance to local, state and federal laws and regulations.
- General Comments** : Refer to section 6, accidental release measures for additional information.

14. Transport Information:

| Regulatory Information | UN No. | Proper Shipping Name | UN Class | Packing Group | Label |
|------------------------|--------|----------------------|----------|---------------|-------|
| US DOT | N/A | Not DOT Regulated | N/A | N/A | N/A |

15. Regulatory Information:

U.S. FEDERAL REGULATIONS:

TSCA: All components of this product are listed on the TSCA inventory.

CERCLA: No components of this product are listed.

SARA TITLE III (EPCRA) Section 313: No components of this product are listed.

SARA TITLE III (EPCRA) Section 311/312: No components of this product are listed.

Canadian WHMIS Classification: D2(B) - No components of this product are listed.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA

California Proposition 65: No significant risk level

Acute health hazard - Yes

Chronic health hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

16. Other Information:

HMIS and NFPA Rating Scale:

HMIS: Hazardous Materials Identification System

NFPA: National Fire Protection Association

Numeric Scale for Health (Blue), Flammability (Red), and Physical Hazard (Yellow):

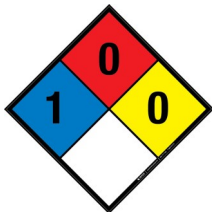
HMIS Rating:*

| | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 1 |
| PERSONAL PROTECTION | C |

*HMIS Key:

| |
|--|
| HEALTH 1-Slight |
| FLAMMABILITY 0 - Minimal |
| PHYSICAL HAZARD 1 - Slight |
| PERSONAL PROTECTION C - Gloves + Safety Goggles + Chemical Apron |

NFPA Rating:*



*NFPA Key:

| |
|---|
| HEALTH 1 - Can cause serious irritation |
| FLAMMABILITY 0 - Will not burn |
| REACTIVITY 0 - Stable |
| SPECIFIC HAZARD -None |

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