



North Metal and Chemical Company

1. Company Identification:

Product Name : NorthQuest 575 (Stabilized Hydroxyphosphono acetic acid, acrym. HPA).
Product Use : Corrosion Inhibitor in industrial water systems.
Manufactured for : NORTH Metal and Chemical Company
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York, PA, USA 17405
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In Case of Emergency or Spill Call CHEMTREC (24 Hours): 1-800-424-9300 (USA & CANADA)

2. Hazard Identification:**GHS Classification:**

Corrosive to Metals (Category 1)
Specific Target Organic Toxicity RE (Category 2)
Eye Damage/Irritation (Category 2A)
Acute Toxicity, Oral (Category 5)
Acute Toxicity, Inhalation (Category 5)
Acute Toxicity, Dermal (Category 5)

Signal Word: Warning

Pictograms:

**Hazard Statements:**

H290 : May be corrosive to metals.
H303 : May be harmful if swallowed.
H313 : May be harmful in contact with skin.
H333 : May be harmful if inhaled
H319 : Causes serious eye irritation.
H373 : May cause damage to mucous membranes through prolonged or repeated exposure.

Precautionary Statements:

P260 : Do not breathe fumes/gas/mist.
P280 : Wear protective gloves, protective clothing such as apron, boots and safety glasses with side shields.
P264 : Wash all affected body parts thoroughly after handling.
P234 : Keep only in original container.
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
P301 + P330 + P331 : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P304 + P340 + P310 : IF INHALED: Remove person to fresh air and keep in position comfortable for breathing . Continue rinsing.
P337 + P313 : If eye irritation persists : Get medical advice/attention
P390 : Absorb spillage to prevent material damage.
P406 : Store in a corrosive resistant container with a resistant inner liner.
P312 + P314 : Get medical attention/Call a POISON CENTER or doctor/physician if you feel unwell.

3. Composition/Information on Ingredient:

Chemical Name : Stabilized Hydroxyphosphono acetic acid (HPA)

Chemical Family : Phosphonates

**Chemical Formula/
Structure** :

Substance:	CAS Number:	Compo. (%)
Hydroxyphosphono acetic acid	23783-26-8	45 - 49
Ethanolamine	141-43-5	1 - 5

4. First Aid Measures:

Eyes : Flush eyes with running water for at least fifteen minutes while holding eye lids apart. 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 any skin reactions, redness or itching develops. Contaminated clothing should be thoroughly washed before reuse.

Ingestion : If the product is swallowed, first rinse mouth with water. Give large amounts of water. 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 so the vomit does not enter lungs.

Inhalation : If safe to do so, remove individual from further exposure. Keep warm and at rest. If breathing has ceased, give artificial respiration. Do not give mouth to mouth resuscitation. Get medical attention/consult a physician immediately.

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 : Slight fire hazard. Evacuate personnel in-order to avoid inhalation of irritating and/or harmful fumes and smoke.

Extinguishing Media : **Water spray, 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, carbon oxides and nitrogen oxides.**

Fighting Procedures : Cool exposed containers with water spray to prevent overheating. 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 and others. If possible, firefighters should control run-off water to prevent environmental contamination. Hazardous decomposition and combustion products such as oxides of phosphorous, carbon and nitrogen can be formed if product is burning.

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 worn for all fires.

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 absorbed with sand or contained with an absorbent pad and placed in a properly labeled waste disposal container immediately. 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 (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
Hydroxyphosphono Acetic Acid	23783-26-8	N/A	N/A	N/A	N/A
Ethanolamine	141-43-5	N/A	3.0 ppm	3.0 ppm (TWA)	6 ppm

9. Chemical and Physical Properties:

Appearance	: Liquid	Evaporation Rate	: Not available.
Odor	: Not available	Lower Explosive Limit	: Not available.
Odor threshold	: Not available	Upper Explosive Limit	: Not available.
Color	: Dark Brown Liquid	Vapor Pressure	: Not available.
pH	: 1.0 - 3.0	Vapor Density	: Not available
Melting Point	: < -5	Specific Gravity	: 1.30 - 1.50 @ 20°C
Freezing Point	: -5°C, 22°F	Solubility	: Miscible in water
Boiling Range	: 100 - 103 °C	Partition Coefficient	
Flash Point	: Not available.	n-octanol/water	: <0
Viscosity	: max 75 cps @ 25° C	Auto Ignition Temp.	: Not available.

10. Stability and Reactivity:

Stability	: The product is stable under recommended storage and handling conditions.
Hazardous Polymerization	: Polymerization will not occur.
Hazardous Decomposition Products	: Phosphate, inorganic acids, oxides of phosphorous.
Materials to Avoid	: Bases, amines, metals reducing agents, oxidizing materials. Violent reactions with Alkalis. Incompatible with amines. Corrosive to metals in presence of moisture. Toxic gases released with sulfites and metal salts of sulfides. Fire and explosion hazard in presence of oxidizers.
Conditions to Avoid	: Avoid exposure to extreme temperatures, incompatible materials, flames, sparks and other sources of ignition. Dangerous gases may be formed in confined spaces. May ignite or explode in contact with combustible materials. .

11. Toxicological Information:

Acute Oral Toxicity:

LD₅₀ Oral - Rat: 1800 mg/kg

Acute Inhalation Toxicity:

LC₅₀ Inhalation - Rat: No data available

Acute Dermal Toxicity:

LD₅₀ Dermal - Rat: No data available.

Corrosion/Irritation:

Skin : Irritant
Eyes : Corrosive

Carcinogenicity : No data available.

Mutagenicity : No data available.

Teratogenic Effects : No data available.

Sensitization : No data available

Reproductive Effects : No data available.

Routes of Exposure : Eyes, Skin, Inhalation, Ingestion

Potential Health Effects:

Eyes : Acute Exposure: Aqueous solutions may cause burning and itching.
Chronic Exposure: Repeated or prolonged exposure to irritants may cause conjunctivitis.

Skin : Acute Exposure: Aqueous solutions may cause burning and itching.
Chronic Exposure: Repeated or prolonged exposure to irritants may cause dermatitis.

Inhalation : Acute Exposure: Aqueous solutions have been reported to be corrosive to all mucous membranes.
Chronic Exposure: No data available.

Ingestion : Acute Exposure: Aqueous solutions have been reported to be corrosive to all mucous membranes.
Chronic Exposure: Administration of 50, 150, or 500 mg/kg/day for 24 months resulted in reduced body weights and changes in liver, spleen kidney weights or weight ratios in the high dose group.
The no effect level was considered to be 150 mg/kg/day.

12. Ecological Information:

All work practices must be aimed at eliminating environmental contamination.

Biodegradability in Soil/Water

: Information about 2-Hydroxyphosphonoacetic Acid:

Biodegradation:

Zahn– Wellens Dissolved Organic Carbon removed 33% 28 Days.

Modified OECD Screening theoretical CO₂ evolution 2% 70 Days.

Modified SCAS Dissolved Organic Carbon removed 90%

Closed bottle BOD 30/COD 5%

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 (Hydroxyphosphono Acetic Acid)

Fish Toxicity : Onocorhynchus mykiss - LC₅₀ (96h) - 368 mg/l

Lepomis macrochirus - LC₅₀ (96h) - 868 (OECD 203)

Aquatic Invertebrates: Daphnia magna (Crustacea) EC₅₀ (48h) - 527 mg/l

Aquatic Plants : Algae (Selenastrum capricornutum) - EC₅₀ (96h) - 3 mg/L*

* Algal growth inhibition is due to ability of this product to complex materials not to toxicity per se.

Mobility in Soil

: No data available.

Other Adverse Effects

: No data available.

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	3265	Corrosive Liquid, Acidic, Organic, N.O.S. (Hydroxyphospno-acetic acid)	8	II	Corrosive Sticker
IMDG	3265	Corrosive Liquid, Acidic, Organic, N.O.S. (Hydroxyphospno-acetic acid)	8	II	Corrosive Sticker
IATA	3265	Corrosive Liquid, Acidic, Organic, N.O.S. (Hydroxyphospno-acetic acid)	8	II	Corrosive Sticker

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.

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

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

HMIS Rating:*

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	C

RATING	HEALTH	FIRE HAZARD	PHYSICAL HAZARD
0	No significant risk to health	Will not burn	Product stable under ambient temperature and condition.
1	Can cause irritation or minor reversible injury.	Must be preheated to burn	Product can become unstable at high temperatures and pressures.
2	Can cause temporary or residual injury	Ignites when moderately heated	Product can become unstable and cause violent chemical reaction at normal pressures and temperatures
3	Can cause serious injury	Ignition occurs at normal temperature	Product capable of forming explosive mixtures and is capable of detonation in presence of strong initiating source.
4	Can be lethal from single or repeated exposure.	Extremely flammable	Product is highly explosive and unstable. Exothermic reactions possible with decomposition, polymerization, reaction with water or self reaction

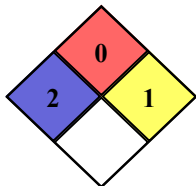
Personal Protection Code C: Gloves + Safety Goggles + Chemical Apron

16. Other Information:

NFPA: National Fire Protection Association

Numeric Scale for Health (Blue), Fire Hazard (Red), and Reactivity (Yellow):
Special (White)

NFPA Rating:*



RATING	HEALTH	FIRE HAZARD	REACTIVITY
0	Minimal Hazard	Will not burn	Normally Stable
1	Can cause significant irritation	Must be preheated to burn	Unstable at high temperatures
2	Can cause temporary incapacitation or residual injury	Ignites when moderately heated	Normally unstable. Can readily go under violent chemical reaction but do not detonate.
3	Can cause permanent injury.	Ignition occurs at normal temperature	Capable of detonation, or of explosive reaction, but requires a strong ignition source.
4	Can be lethal.	Extremely flammable	May explode at normal temperatures and pressures

Revision Date: October 31, 2018

Reason for Revision: Added additional information to Section 9

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