



North Metal and Chemical Company

1. Company Identification:

Product Name : 5660; Tetra-sodium salt of HEDP (HEDP Na₄)
Synonyms : Dry HEDP
Product Use : Scale inhibitor and dispersing agent for use in industrial water treatment and detergent programs

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 Toxicity (Category 4)
Eye Damage/Irritation (Category 2A)
Signal Word: WARNING



Hazard Statement (s):

H302 : Harmful If swallowed.
H319 : Causes serious eye irritation.

Prevention:

P264 : Wash all affected body parts thoroughly after handling.
P270 : Do not eat, drink or smoke when using this product.
P280 : Wear protective gloves, protective clothing such as apron, boots and safety glasses with side shields.

Response:

P301 + P312 : IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell
P330 : Rinse mouth.
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 : If eye irritation persists : Get medical advice/attention
P501 : Dispose of contents in accordance with local, state & national legislation.

Potential Health Effects:

Eyes: Dust may cause burning, drying, itching and other discomfort, resulting in reddening of the eyes.
Skin: Exposure to the dust, such as in manufacturing, may aggravate existing skin conditions due to the drying effect.
Inhalation: Exposure to the respirable dust may cause respiratory tract and lung irritation and may aggravate existing respiratory conditions.
Ingestion: May be harmful if swallowed. Do not swallow.

3. Composition/Information on Ingredient:

Chemical Name : 5660: Tetra Sodium salt of 1- Hydroxy Ethylidene 1,1- Diphosphonic Acid
Chemical Family : Phosphonate
Chemical Formula : N/A

Substance:	CAS Number:	Hazard	Compo. (%)
Tetra Sodium salt of 1- Hydroxy Ethylidene 1,1- Diphosphonic Acid	3794-83-0	See Section 2	85.0 minimum

4. First Aid Measures:

General information : Instantly remove any clothing contaminated by the product Do not wait until symptoms appear, but follow immediately the instructions given below.

After eye contact: Flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during the flushing. Seek medical attention if irritation is observed.

After skin contact: Remove contaminated clothing. Wash affected area with large amounts of water & soap. Seek medical attention if irritation is observed. If the clothing is contaminated, it should be laundered.

After inhalation: In case of exposure remove exposed person to fresh air. If breathing has ceased, give artificial respiration. Seek medical attention.

After ingestion: First rinse mouth. Give large amount of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

Note to Physician: Treat symptomatically

5. Fire Fighting Measures:

Suitable extinguishing media: Water, Dry chemical powder, Dry sand , Foam, CO2

Unsuitable fire extinguishing media: None

Hazardous combustion products: Carbon oxides, Phosphorus oxides, Phosphines

Fire fighting procedure: Use appropriate protective equipment while fighting fire • Special protective equipment for the fighters : In case of fire, irritant fumes may form. Do not breathe fumes. Wear self contained breathing apparatus and full protective clothing. Equipment should be thoroughly decontaminated after use.

6. Accidental Release Measures:

Personal Precautions: Avoid contact with material. Use respiratory & personal protection recommended in Section 8.

Environmental Precautions: Prevent mixing with water bodies, sewers.

Methods for Cleaning Up: Carefully sweep /collect material without dust formation. Collect in containers for disposal. Use respiratory equipment & personal protective clothing. Dispose as per instructions mentioned in Section 13.

Additional Instructions: After clean up operations, decontaminate & launder all protective clothing and equipment before storing & reusing.

7. Handling and Storage:

HANDLING :

Information for safe handling: Only trained staff with special training and appropriate equipment must handle the product. Good industrial practice in housekeeping should be followed. Avoid contact with eyes, skin and clothing. Use personal protective equipment recommended in Section 8.

Technical measures like containment, ventilation, spillage handling etc:

Ensure good ventilation at workplace. Do not enter confined spaces until atmosphere has been checked.

STORAGE :

Conditions for safe storage: Store in cool, dry, well-ventilated area away from heat and ignition sources. Keep containers securely sealed. Avoid physical damage to containers. Check regularly for spills/leaks. Store away from incompatible materials and foodstuff materials.

Material of construction of containers: Fiber drums

8. Exposure Controls and Personal Protection:

Occupational exposure limit values / Biological limit values:

No data available

Applicable control measures, including engineering controls:

Good industrial practice in housekeeping and personal hygiene should be followed. Ensure adequate ventilation of workplace. If risk of overexposure exists, wear approved respirator. Provide eyewash facility & safety shower.

Industrial Hygiene Controls:

Good personal hygiene practices should be followed. Avoid contact with eyes, skin and clothing. Wash hands before breaks and after work. Take bath after work. Do not eat, drink, smoke in the workplace. Use personal protective equipment.

Personal protective equipment for each exposure route (type & MOC):

- Respiratory protection : Avoid breathing dust. Use appropriate dust mask.
- Hand protection : PVC / Rubber gloves Penetration time of glove material : Not available
- Eye protection : Safety goggles, Full face shield
- Skin protection : Chemical resistant apron
- Foot : Safety shoes / Rubber gumboots

9. Chemical and Physical Properties:

Appearance	: Fine Powder	Upper Explosive Limit	: Not explosive
Odor	: Odorless	Vapor Pressure	: No Data Available
Odor threshold	: Not available	Vapor Density	: No Data Available
Color	: White to Off-White	Bulk Density	: 0.8 mg/cc
pH (1% Solution)	: 11.0-12.0	Specific Gravity	: No Data Available
Melting Point	: > 200°C	Solubility	: Soluble in water
Freezing Point	: No Data Available	Partition Coefficient	
Boiling Range	: No Data Available	n-octanol/water	: Not available
Flash Point	: No Applicable	Auto Ignition Temp.	: Not available
Ignition Temp.	: No Data Available	Molecular Weight	: No Data Available
Evaporation Rate	: Not Applicable		
Lower Explosive Limit	: Not Explosive		

10. Stability and Reactivity:

Chemical stability:	Generally stable under normal conditions of handling and storage.
Conditions to avoid:	None
Materials to avoid:	Oxidizing substances, strong acids. Attacks many metals.
Hazardous decomposition products:	Oxides of carbon, Oxides of phosphorus
Hazardous polymerization:	Does not occur

11. Toxicological Information:

Toxicology data :

Skin :	LD50 Dermal (Rabbit): >1650 mg/kg
Ingestion :	LD50 Oral (Rat): 940 mg/kg
Inhalation :	No data available
Irritancy :	Mild irritation of skin & eyes

Acute effects :

Skin contact :	Slight irritation
Eye contact :	Slight irritation
Inhalation :	Inhalation hazard is very unlikely. May be slightly irritating.
Ingestion :	Slightly toxic

Chronic effects :

Sensitization :	No data available
Carcinogenicity :	No data available
Reproductive toxicity :	No adverse effect
Teratogenicity :	No data available
Mutagenicity :	No data available

12. Ecological Information:

Ecotoxicity:

Aquatic Toxicity:	EC50 / Daphnia magna / 48H : 527 mg/l
Toxicity to Algae:	EC50 / Selenastrum capricornutum / 96H : 9.16 mg/l
Toxicity to Fish:	LC50 / Rainbow trout / 96H : 368 mg/l

Mobility:	No data available
Persistence and degradability in soil/water:	Closed bottle BOD30/COD 5% - Degrades after acclimatization
Bioaccumulation potential:	Not expected to bioaccumulate
Other adverse effects (ODP, GWP, etc). :	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	None	Not DOT Regulated	None	-	None

15. Regulatory Information:

U.S. Federal Regulations:

TSCA Status: All components of this product are in compliance with TSCA

CERCLA Section 103 (40 CFR 302.4): No components of this products are listed.

Section 311/312 Categorizations (40 CFR 370): Chronic Health Hazard.

SARA Section 313: No components of this products are listed.

16. Other Information:

The information contained in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer/supplier, they are not held responsible for loss, injury, and expense arising out of the product's use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this MSDS.

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