

## 1. Company and Product Identification:

**Product Name** : 5660; Tetrasodium salt of HEDP (HEDP Na<sub>4</sub>).  
**Recommended Use** : Scale inhibitor and dispersing agent for use in industrial water treatment and detergent programs.  
**Supplier** : North Metal and Chemical Co.

In Case of Emergency Call CHEMTREC (24H): 1-800-424-9300

## 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:

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

COMPONENT:	CAS No.	COMPOSITION (%):
Tetra Sodium salt of 1- Hydroxy Ethylidene 1,1- Diphosphonic Acid	3794-83-0	85.0 Min.

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

## 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: Fibre board 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:

### General Information :

Physical state : Flakes / Powder

Colour : White

Odour : Odourless

### Important Health, Safety & Envir. Information :

pH : 11-12 (1% solution)

### Other information :

Melting point : > 200°C

Bulk density : 0.8 gm/cc

Solubility in water : Miscible in water

Flash point (with method) : Not applicable

Auto ignition temperature : Not applicable

## 10. Stability and Reactivity:

- |                                    |   |
|------------------------------------|---|
| Chemical stability                 | : Generally stable under normal conditions of handling and storage. |
| • Conditions to avoid              | : None  |
| • Materials to avoid               | : Oxidising 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
- Toxicologically synergistic products : No data available

## 12. Ecological Information:

### • Ecotoxicity:

1. Aquatic toxicity : EC50 / Daphnia magna / 48H : 527 mg/l
2. Toxicity to algae : EC50 / Selenastrum capricornutum / 96H : 9.16 mg/l
3. 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	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:

#### SAFETY DATA SHEET (SDS) LIABILITY WAIVER

Safety Data Sheets (SDS) are provided with shipment. It is Buyer's responsibility to read and adhere to all recommended safety instructions for handling of goods. Buyer assumes all risk and liability in handling all items. All information provided in the SDS is believed to be accurate, however, North Metal and Chemical makes no express or implied warranties regarding the accuracy of such information. Buyer is solely responsible for determining his activities compliance with all local, state and federal laws. Buyer is solely responsible for the safety of any end products made with materials/goods purchased from Penn Chemicals, Inc.