



North Metal and Chemical Company

### 1. Company Identification:

**Product Name** : Phosphonates Na5 A.T.M.P.  
**Synonyms** : Aqueous sodium solution of amino tri(methylene phosphonic acid); Phosphonic acid, [nitritotris(methylene)]tris-sodium salt  
**Product Use** : Used as a sequestering agent and calcium carbonate scale inhibitor for applications in industrial water treatment, industrial cleaning, oil production, and textile bleaching  
**Chemical Name** : Phosphonates Na5 A.T.M.P.  
**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:**

Serious Eye Damage/Irritation—Category 2B  
Acute Hazard To The Aquatic Environment—Category 3

**Signal Word: Warning**

**Pictograms:**



**Hazard Statements:**

**H318** : Causes serious eye damage.  
**H402** : Harmful to aquatic life

**Precautionary Statements:**

**Prevention:**

**P264** : Wash all affected body parts thoroughly after handling.  
**P273** : Avoid release to the environment.

**Response:**

**P305 + P351 + P338** : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor/physician.  
**P313 + P337** : If eye irritation occurs/persists: Get medical advice/attention..

**Disposal:**

**P501** : Dispose of contents/container in accordance with local/state/federal regulations.

### 3. Composition/Information on Ingredient:

**Chemical Name** : Phosphonates Na5 A.T.M.P.  
**Chemical Family** : No Data Available  
**Chemical Formula** : No Data Available  
**CAS Number** : 20592-85-2

Substance:	CAS Number:	Hazard	Compo. (%)
Phosphonic Acid, [Nitrilotris(Methylene)] Sodium Salt	20592-85-2	N/A	38 - 42%
Phosphorous Acid	13598-36-2	N/A	< = 4%
Sodium Chloride	7647-14-5	N/A	< = 1%
Water	7732-18-5	N/A	BALANCE %

### 4. First Aid Measures:

**Eyes** : Flush eyes with running water for at least fifteen minutes while holding eye lids open. Remove any contact lenses. Get medical aid/attention if irritation occurs.

**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** : Rinse mouth. Give large amount of water to drink. Call doctor/physician/poison center immediately. Do not induce vomiting. If a person vomits, place him/her in recovery position.

**Inhalation** : Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

**Medical conditions likely to be aggravated by exposure:** No information available on medical conditions aggravated from exposure to this product.

**Note to Physician** : Treat symptomatically.

**PPE for first responders** : Gloves and safety goggles are highly recommended.

### 5. Fire Fighting Measures:

**Flash Point (°C)** : Not applicable

**Flammable Limits** : Not applicable

**General Hazard** : Clear fire area of all non-emergency personnel. Stay upwind, keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.

**Extinguishing Media** : Extinguish with water spray, alcohol-resistant foam, carbon dioxide, dry chemical.

**Hazardous Combustion Products** : Carbon monoxide (CO), carbon dioxide, nitrogen oxides (Nox), phosphines.

**Fighting Instructions** : 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** : Fire Fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves.)

## 6. Accidental Release Measures:

<b>General Response Procedure:</b>	Avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product is slippery when spilt. Use clean, non-sparking tools and equipment. Shut off all possible sources of ignition.
<b>Spill Clean-up Procedures:</b>	Soak up spilled product using absorbent non-combustible material such as sand or soil. Avoid using sawdust or cellulose. When saturated, collect the material and transfer to a suitable, labelled chemical waste container and dispose of promptly.
<b>Containment:</b>	Stop the leak if safe to do so. Isolate the danger area.
<b>Decontamination:</b>	Flush spill with water.
<b>Environmental Precaution:</b>	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protective Authority or your local waste management.
<b>Evacuation Criteria:</b>	Evacuate all unnecessary personnel
<b>Personal Precautionary Measures:</b>	Personnel involved in the clean up should wear full protective clothing as listed in <b>Section 8</b> .

## 7. Handling and Storage:

<b>Handling:</b>	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin, and clothing. Do not inhale product vapors.
<b>Storage:</b>	Store in a cool, dry well-ventilated area. Keep containers tightly 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. Do not store with oxidizing agents, alkalis, or caustic substances.
<b>Container:</b>	Store in original packaging as approved by manufacturer.  <b>UNSUITABLE MATERIALS: CARBON STEEL, MILD STEEL, ALUMINIUM OR ANY OTHER METALS</b>

## 8. Exposure Controls and Personal Protection:

<b>Engineering Controls</b>	: Use appropriate engineering controls to minimize exposure to vapors/dust generated via routine use. Maintain adequate ventilation of workplace and storage areas.
<b>Personal Protective Equipment</b>	: <b>Eyes and face:</b> Wear safety glasses with side shields or face shield when handling this material. <b>Skin:</b> Avoid direct contact with skin. Wear chemically resistant gloves (PVC/rubber), apron, boots or whole chemically resistant bodysuit when handling this product. <b>Respiratory:</b> 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.
<b>Work Hygienic Practices</b>	: Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing.
<b>Exposure Limits:</b>	<b>No data available</b>
<b>Biological Limits:</b>	<b>No data/information available for this product.</b>

## 9. Chemical and Physical Properties:

<b>Appearance</b>	: Clear Liquid	<b>Partition Coefficient</b>	
<b>Odor</b>	: Ammonia-like	<b>n-octanol/water</b>	: Not applicable
<b>Odor threshold</b>	: Not applicable	<b>Auto Ignition Temp.</b>	: Not available
<b>Color</b>	: Colorless to Pale Yellow	<b>Molecular Weight</b>	: Not available
<b>pH</b>	: 10-11 at 25°C, 10 g/l: <=2	<b>Viscosity (Kinematic)</b>	: 57.5 mm <sup>2</sup> /s @ 20°C
<b>Melting Point</b>	: -16 °C		17.4 mm <sup>2</sup> /s @ 40°C
<b>Freezing Point</b>	: - 16 °C		7.7 mm <sup>2</sup> /s @ 60°C
<b>Boiling Range</b>	: N/A		
<b>Flash Point</b>	: Not combustible		
<b>Ignition Temp.</b>	: No data available		
<b>Lower Explosive Limit</b>	: Not available		
<b>Upper Explosive Limit</b>	: Not available		
<b>Vapor Pressure</b>	: Not available		
<b>Vapor Density</b>	: Not available		
<b>Specific Gravity</b>	: 1.40 - 1.45 @ 20 °C		
<b>Solubility</b>	: Miscible in water		

## 10. Stability and Reactivity:

<b>Stability</b>	: The product is stable under recommended storage and handling conditions.
<b>Hazardous Polymerization</b>	: Polymerization will not occur.
<b>Hazardous Decomposition Products</b>	: Carbon monoxide (CO), carbon dioxide, nitrogen oxides (Nox), phosphines.
<b>Materials to Avoid</b>	: Contact with strong oxidizing agents and strong acid solutions
<b>Conditions to Avoid</b>	: Keep away from heat/sparks/open flames/hot surfaces. Freezing temperatures.

## 11. Toxicological Information:

### Acute Oral Toxicity:

LD<sub>50</sub> Oral - Rat: > 17800 mg/kg

### Acute Inhalation Toxicity:

LC<sub>50</sub> Inhalation : No data available

### Acute Dermal Toxicity:

LD<sub>50</sub> Dermal - Rabbit: > 15800 mg/kg

### Corrosion/Irritation:

**Skin** : Skin irritation: Particularly non-irritating to the skin

**Eyes** : Eye damage/irritation: Mild eye irritant

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

**Sensitization** : No data available

**Mutagenicity** : No genetic effects were noted in standard bacterial tests

**Reproductive Effects** : No data available.

**Teratogenic Effects** : No data available.

**Routes of Exposure** : Eyes, Skin, Inhalation, Ingestion

**Reproductive toxicity** : Based on available data, the classification are not met

: NOAEL (P) Rat, oral (male): 275 mg/kg bw/d

: NOAEL (P) Rat, oral (female): 310 mg/kg bw/d

**Specific target organ toxicity (single exposure):** body weight, liver, spleen, kidney

**Specific target organ toxicity (repeated exposure):** Based on available data, the classification criteria are not met

### Potential Health Effects:

Eyes : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion : No known significant effects or critical hazards.

## 12. Ecological Information:

All work practices must be aimed at eliminating environmental contamination.

**Biodegradability in Soil/Water** : 301D: 20% at 30d – Not readily biodegradable  
302B: 23% at 28d – Not readily biodegradable

**Bioaccumulative Potential** : Not available

### Aquatic Ecotoxicity (Acute)

**Fish Toxicity** : Oncorhynchus mykiss: LC<sub>50</sub> 330/mg/L/96H

**Aquatic Invertebrates** : Daphnia magna (Big Water Flea) EC<sub>50</sub> 297 mg/L/48h  
: Alga (selenastrum capricornutum) EC<sub>50</sub> >= 20 mg/L/4d

**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** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities and jurisdictions. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

## 14. Transport Information:

Regulatory Information	UN No.	Proper Shipping Name	UN Class	Packing Group	Label
US DOT	Not Regulated	Phosphonates Na5 A.T.M.P	N/A	N/A	N/A
IMDG	Not Regulated	Phosphonates Na5 A.T.M.P	N/A	N/A	N/A
IATA	Not Regulated	Phosphonates Na5 A.T.M.P	N/A	N/A	N/A

## 15. Regulatory Information:

### U.S. FEDERAL REGULATIONS:

**TSCA:** CAS# 20592-85-2 is 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)** - Materials causing other toxic effects; E—Corrosion Material

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

**California Proposition 65:** No significant risk level

## 16. Other Information: The below information is obtained from a similar product.

### 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):

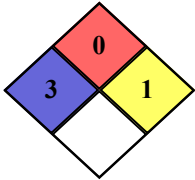
#### HMIS Rating:\*

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	C

#### \*HMIS Key:

HEALTH 3—Serious
FLAMMABILITY 0 - Minimal
PHYSICAL HAZARD 1 - Slight
PERSONAL PROTECTION C — Gloves + Safety Goggles + Chemical Apron

#### NFPA Rating:\*



#### \*NFPA Key:

HEALTH 3 - Serious
FLAMMABILITY 0 - Slight
REACTIVITY 1 - Slight
SPECIFIC HAZARD —None

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