North Metal and Chemical Company

1. Company Identification:

Product Name : North DTPMPA-Na2

Synonyms : **NorthQuest 6202:** Dequest 2066A

Product Use : Scale inhibitor and dispersing agent for use in industrial water treatment programs.

Chemical Name : Disodium salt of Diethylenetriamine Penta (methylenephosphonic acid), DTPMPA-Na2

Manufactured for : **North Metal and Chemical Company**

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2. Hazard Identification:

GHS Classification:
Corrosive to Metal (Category 1)
Skin Corrosion (Category 1B)

Signal Word: Warning
Pictograms:

HAZARD STATEMENTS:

H290:	May be corrosive to metals
H317:	May cause an allergic skin reaction

PRECAUTIONARY STATEMENTS:

Prevention:

P234:	Keep only in original container
P261:	Avoid breathing dust/fumes/gas/mist/vapors/spray.
P272:	Contaminated work clothing should not be allowed out of the workplace.
P280:	Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P302 + P352	IF ON SKIN: Wash with soap and water
P332 + P313	IF SKIN IRRIATION OR RASH OCCURS: Get Medical Advice/attention
P363:	Wash contaminated clothing before reuse
P391:	Collect spillage to prevent material damage

Storage:

P406:	Store in a corrosive resistant container

Disposal:

P501	Dispose of contents/container in accordance with local laws and regulations

3. Composition/Information on Ingredient:

Chemical Name : Sodium Salt of Diethylene triamine penta (methylene phosphonic acid) (DTPMP-Na2)

Chemical Family : Phosphonates

Chemical Formula : No Data Available

CAS Number : 22042-96-2

Substance:	CAS Number:	Compo. (%)
Diethylenetriamine Penta (methylenephosphonic acid)	22042-96-2	> 45.0 - 49.0 %
Sodium Chloride	7647-14-5	< 5.0 %
Water	7732-18-5	Proprietary

4. First Aid Measures:

General Advice: Grossly contaminated clothing should be washed before reuse.

Inhalation: Move subject to fresh air.

Skin contact: Wash immediately with plenty of water. Seek medical advice if there are persistent symptoms

Eye contact: Flush with running water for at least fifteen minutes. Seek medical advice if there are persistent symptoms

Ingestion: If the product is swallowed, rinse mouth with large quantities of water and call doctor/poison center immediately. Drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

On the basis of available information, this material is not expected to produce any significant adverse health effects when recommended use instructions are followed.

5. Fire Fighting Measures:

Flash Point (°C): No data available. **Flammable Limits:** No data available.

Auto ignition Temp.: No data available. **Decomposition Temp:** No data available.

Flame Propagation or Burning Rate of Solids: No data available.

General Hazard: Evacuate personnel in a manner to avoid inhalation of irritating and/or harmful fumes and smoke.

Extinguishing Media: Water spray, chemical-type foam, carbon dioxide. Do not use high power water jet. Appropriate for the surrounding area.

Hazardous Decomposition

Products: **Oxides of carbon (CO_x), nitrogen (NO_x), and phosphorous compounds such as phosphorus oxides and phosphines.**

Fire Fighting Hazards: Fires in the immediate vicinity may cause the development of dangerous vapors. In the event of a fire, the following may be product when the water evaporates: phosphorous compounds, carbon monoxides and carbon dioxides.

Fire Fighting Procedure/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 others and firefighters. If possible and without risk, firefighters should control run-off water to prevent environmental contamination.

DO NOT ALLOW WATER USED TO EXTINGUISH FIRE TO ENTER DRAINS, GROUNDS OR WATER WAYS. TREAT RUNOFF AS HAZAROUS.

6. Accidental Release Measures:

Protective Gear for Personnel:

For Small Spill: Safety glasses or chemical splash goggles, latex gloves, chemically resistant boots, and any appropriate body protection to minimize direct contact to the skin.

Spill Clean-up Procedures:

General Procedure: Do not let chemicals/waste enter land or water environment.

For Small Spill: In the event of a small spill, the spill should be swept up or contained with an absorbent pad and placed in a properly labeled waste container immediately. Wash the spill area and contain the waste in a labeled waste container without letting the wash enter the sewer/environment. Dispose the spill/waste according to state, federal and local hazardous waste regulations.

For Large Spill: In the event of a large spill, contain the spill immediately with dikes and dispose according to state, federal, and local hazardous waste regulation.

Environmental Precaution: Keep out of drains and water environments.

7. Handling and Storage:

Handling: Avoid prolonged exposure or contact with skin. Wash hands thoroughly after handling or contact.

Engineering Measures: Provide natural or mechanical ventilation to minimize exposure.

Storage: Keep in a cool, dry, well ventilated area. Stable under normal conditions of handling and storage.

Approved storage materials: Glass, PVC, Polypropylene, glass reinforced plastics, polyethylene.

Unsuitable storage materials: Mild Steel, carbon steel, aluminum, avoid all metals.

8. Exposure Controls and Personal Protection:

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

Personal Protective Equipment:

Eyes and face: Wear NIOSH approved safety glasses with side shields or goggles when handling this material.

Hand: Wear chemical-resistant gloves made of PVC or rubber.

Body: Although this product does not present a significant risk for skin, minimize exposure by following good industrial techniques. Wash contaminated skin thoroughly after handling

Respiratory: This material is not likely to present an airborne exposure concern under normal conditions of use. Avoid breathing vapor or mist. Use approved respiratory protection equipment (full facepiece recommended) when airborne exposure is excessive. If used, full facepiece replaces the need for face shield and/or chemical goggles. Observe respirator use limitations specified by the manufacturer.

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.

9. Chemical and Physical Properties:

Appearance	**:** Dark Amber Liquid		
Odor	**:** Characteristic	**Vapor Pressure**	**:** No Data Available
Odor threshold	**:** Not applicable	**Vapor Density**	**:** No Data Available
Color	**:** Brown	**Specific Gravity**	**:** 1.35 - 1.55 @ 20°C
pH, 1% Solution	**:** 2.0 - 3.5	**Solubility**	**:** Fully Miscible in water
Melting Point	**:** -19°C	**Partition Coefficient**	**:** 3.5 @20°C
Freezing Point	**:** -20°C	**Viscosity (Kinematic)**	**:** No Data Available
Boiling Range	**:** No Data Available	**Decomposition Temp.**	**:** > 200°C (Thermal - DTPMPA)
Flash Point	**:** No Data Available		

10. Stability and Reactivity:

Stability: The product is stable under normal ambient conditions of temperature and pressure.

CORROSIVE TO METALS (ALUMINIUM & STEEL)

Polymerization: Polymerization will not occur.

Hazardous Decomposition Products: In case of fire the following may be liberated: nitrogen oxide (NO_x), phosphorous oxides, phosphines, carbon monoxide and carbon dioxide.

Incompatible Materials: Strong oxidizing agents, alkalis, and caustic substances. Reacts with steel and aluminum.

Conditions to Avoid: Avoid exposure to extreme temperatures, contact with incompatible chemicals, uncontrolled contact with accelerants. Will corrode metals over time, avoid contact.

11. Toxicological Information:

Acute Oral Toxicity:

LD50 Oral - Rat**: >** 5000 mg/kg

Acute Dermal Toxicity:

LD50 Dermal - Rabbit: >5000 mg/kg

Acute Inhalation Toxicity:

LD50 Inhalation - Rat: No data available.

Corrosion/Irritation:

Skin : Rabbit - Not irritating to skin. 4h

Eyes : Rabbit - Slightly irritating to eyes but not sufficient for classification. 24h

Carcinogenicity : No data available

Skin Sensitization : Not sensitizing (Guinea pig)

Mutagenicity* : Ames Test: Negative, Gene-mutations mammalian cells: negative

Reproductive Effects : Rat, diet, One generation: Signs of generalized toxicity (reduced body weight and/or reduced weight gain) were observed in parental animals and offspring with no effect on fertility or reproduction.

Teratogenic Effects : Rat, Oral: Minor variations and/or reduction in fetal weight, but no birth defects. Effects only observed at very high dosage

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12. Ecological Information:

This product has not been tested for environmental toxicity, but data obtained on a similar product is summarized below:

Toxicity: Harmful effects on water organisms by modification of pH value

Algae Toxicity: 96 h, EC50 Algae (Selenastrum capricornutum) 2 mg/l

Daphnia Toxicity: 48 h, EC50 Water flea (Daphnia magna) 242 mg/l

Fish Toxicity: 96 h, LC50 Rainbow trout (Oncorhynchus mykiss) > 180 mg/l

Water hazard class: 1 - slightly hazardous to water.

Persistence and degradability:

Biodegradability: Modified SCAS Primary degradation 2,2 %
River Die-Away theoretical CO_2 evolution 9,55 % 60 d

Bioaccumulative Potential: No indication of bioaccumulation potential.

Mobility in Soil: No data available.

Other Adverse Effects: Do not allow to enter into ground water, surface water, or drains.

13. Disposal Considerations:

Disposal Method : All local laws and regulations must be followed. Burn only in proper incinerator. Send to special, chemical waste disposal facility. Small Quantities: Adjust pH to between 6 and 9 and flush with plenty of water.

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. (Phosphonic Acids)	8	III	Corrosive
IMDG	3265	Corrosive Liquid, Acidic, Organic, N.O.S. (Phosphonic Acids)	8	III	Corrosive

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):	**Acute Health Hazards**
SARA Section 313:	**No components of this products are listed.**

16. Other Information:

NFPA Rating:*

***NFPA Key:**

HEALTH 1 - Slight
FLAMMABILITY 0 - Minimal
REACTIVITY 0 - Minimal
SPECIFIC HAZARD —None

HMIS Rating:*

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

***HMIS Key:**

HEALTH 1—Slight
FLAMMABILITY 0 - Minimal
PHYSICAL HAZARD 0 - Minimal
PERSONAL PROTECTION X — None

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