



North Metal and Chemical Company

1. Company Identification and Product Hazard Overview:

Product Name : NorthQuest 4367; Phosphino Carboxylic Maleic polymer blend

Recommended Use : Scale inhibitor and dispersant for use in industrial water treatment.

Manufactured for : **NORTH Metal and Chemical Company**
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2. Hazard Identification:

GHS Classification:

Skin Corrosion (Category 2)

Serious Eye Damage (Category 2A)

Acute Toxicity, Oral (Category 5)

Acute Toxicity, Inhalation (Category 5)

Signal Word: Warning

Pictogram: Acute Toxicity



Hazard Statements:

H315 : Causes skin irritation.
H319 : Causes serious eye irritation.
H303 : May be harmful if swallowed
H333 : May be harmful is inhaled

Precautionary Statements:

P264 : Wash all affected body parts thoroughly after handling.
P280 : Wear protective rubber gloves/apron/goggles with side shields/face protection.
P302 + P352 + P362 : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse
P305 + P351 + P338 : IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P337 + P313 : If eye or skin irritation persists, get medical attention.
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
P312 : Call a POISON CENTER or doctor/physician if feeling unwell
P403 + P235 : Store in a well-ventilated place. Keep cool.
P273 + P405 : Avoid release to the environment. Store Locked Up.
P501 : Dispose of contents/container in accordance with local/state/federal regulations.

3. Composition/Information on Ingredient:

Chemical Name : NorthQuest 4367; Acrylic/Maleic polymer
Chemical Family : Acrylic and maleic polymers
Chemical Formula/Structure : N/A

| Substance: | CAS Number: | Hazard | Compo. (%) |
|---------------------------|-------------|--------|------------|
| Maleic Acid | | | 14-20% |
| Phosphino Carboxylic Acid | | | 14-20% |
| Sodium Hydroxide | | | 14-20% |

4. First Aid Measures:

Eyes : Flush eyes with running water for at least fifteen minutes. Remove any contact lenses. If irritation persists, get medical aid.

Skin : Remove contaminated clothing. Flush skin with running water and soap for fifteen minutes. If irritation persists, get medical aid.

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

Inhalation : If safe to do so, remove individual from further exposure. Keep warm and at rest. If cough or other symptoms develop, call doctor/poison center immediately.

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

5. Fire Fighting Measures:

Flash Point (°C) : No data available.

Flammable Limits : Not applicable.

Autoignition Temp. : Not applicable.

Flammable Class : Not applicable.

Flame Propagation or Burning Rate of Solids : Not available.

General Hazard : Evacuate personnel downwind in-order to avoid inhalation of irritating and/or harmful fumes and smoke.

Extinguishing Media : Water spray, chemical-type foam, dry chemical. Appropriate for the surrounding area.

Hazardous Combustion Products : Carbon Oxides, Nitrogen oxides, Phosphorus Oxides, and other hazardous compounds.

Fire Fighting Procedures : This product is a non-flammable substance. However, material can splatter above 100C/212F. Cool exposed containers with water spray to prevent over heating. Dry residue of the product may also burn.

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 used for all indoor fires and any significant outdoor fires. 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. If possible, firefighters should control run-off water to prevent environmental contamination.

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/latex), chemically resistant boots, and any appropriate body protection to minimize direct contact to the skin.
- 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 leak should be contained with an absorbent pad and placed in a properly labeled waste disposal container immediately. Do not let chemical/spill waste enter the environment.
- For Large Spill** : In the event of a large spill, contain the spill immediately and dispose according to state, federal, and local hazardous waste regulation. Do not let chemic/spill 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 and alkali 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 product isolated from incompatible materials/conditions. Do not store with alkalis and oxidizing agents.

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. Eye wash facilities and emergency shower must be available when handling this product.

Personal Protective Equipment

- : **Eyes and face:** Wear tightly-sealed safety glasses with side shields or goggles when handling this material.
Skin: Avoid direct contact with skin. Wear chemically resistant gloves, apron, boots or whole bodysuit when handling this product.
Respiratory: Avoid breathing vapor or mist. Use NIOSH approved respiratory protection equipment when air borne exposure is excessive. 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. Never eat, drink, or smoke in work areas.

Exposure Limits:

| Substance: | CAS No.: | OSHA STEL | OSHA PEL | ACGIH TLV | ACGIH STEL |
|-------------------------------------|----------|-----------|----------|-----------|------------|
| Phosphino Carboxylic Maleic polymer | | N/A | N/A | N/A | N/A |

9. Chemical and Physical Properties:

| | | | |
|-----------------------|---------------------|------------------------------|---------------------|
| Appearance | : Liquid | Decomposition Temp. | : Not available |
| Odor | : Resinous | Evaporation Rate | : Not available |
| Odor threshold | : Not available | Flammability | : Not applicable |
| Color | : Yellow to amber | Upper Explosive Limit | : Not available |
| pH (neat) | : 6.0 - 8.0 @ 25°C | Vapor Pressure | : Not available |
| Melting Point | : Not available | Vapor Density | : Not available |
| Freezing Point | : Not available | Specific Gravity | : 1.15 g/cm3 (Min.) |
| Boiling Point | : >100°C | Solubility | : Soluble in water |
| Flash Point | : Not available | Partition Coefficient | : Not available |
| Viscosity | : <200 mPa.s @ 25°C | Auto Ignition Temp. | : Not available |

10. Stability and Reactivity:

| | |
|---|---|
| Stability | : The product is stable under normal ambient conditions of temperature and pressure. |
| Polymerization | : Polymerization will not occur. |
| Hazardous Decomposition Products | : Thermal decomposition may yield acrylic monomers and hydrocarbons. Fire/burning of the product may yield toxic fumes of carbon oxides, nitrogen oxides, phosphorus oxides, and other hazardous compounds. |
| Incompatible Materials | : Strong oxidizers |
| Conditions to Avoid | : Avoid exposure to extreme temperatures. Protect from freezing. Store away from oxidizing agents. Keep away from direct sunlight. Toxic fumes may be released if heated above decomposition point. |

11. Toxicological Information:

Acute Toxicity Data:

| | |
|-----------------------------|---------------------|
| Oral LD ₅₀ | : No data available |
| Dermal LD ₅₀ | : No data available |
| Inhalation LD ₅₀ | : No data available |

Corrosion/Irritation:

| | |
|------|----------------------|
| Skin | : No data available. |
| Eyes | : No data available. |

Sensitization:

| | |
|-------------|----------------------|
| Respiratory | : No data available. |
| Skin | : No data available. |

| | |
|-----------------------------|----------------------|
| Carcinogenicity | : No data available. |
| Mutagenicity | : No data available. |
| Reproductive Effects | : No data available. |
| Teratogenic Effects | : No data available. |

Routes of Exposure : Eyes, Skin, Inhalation, Ingestion

Long Term Exposure Health Effects:

| | |
|------------|--|
| Eyes | : Can cause severe irritation to the eyes. Prolonged exposure may damage eye tissue. |
| Skin | : Can cause skin irritation and redness. |
| Inhalation | : Can cause irritation of the respiratory tract. |
| Ingestion | : Can lead to possible nausea or vomiting. |

12. Ecological Information:

All work practices must be aimed at eliminating environmental contamination. Do not allow undiluted product or large quantities to enter ground water or sewage systems. Release of large amounts of this product into aquatic environments may be harmful to aquatic organisms.

Biodegradability : No data available.

Bioaccumulative Potential : No data available.

Terrestrial Ecotoxicity : This material may be harmful or fatal to contaminated plants or animals, especially if large volumes are released into the environments.

Aquatic Ecotoxicity : This product may be harmful or fatal to exposed aquatic life in low concentrations.

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. This material should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results in chemical or physical or combination may be subject to regulation as a hazardous waste.

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 : Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state, and local regulations.

14. Transport Information:

| Regulatory Information | UN No. | Proper Shipping Name | UN Class | Packing Group | Labels |
|------------------------|--------|----------------------|----------|---------------|--------|
| US DOT | None | Not Regulated | None | | None |
| IMDG | None | Not Regulated | None | | None |
| IATA | None | Not Regulated | None | | None |

15. Regulatory Information:

U.S. Federal Regulations:

TSCA: All components of this product are listed on the TSCA inventory.

CERCLA: Not listed

SARA TITLE III (EPCRA) Section 302/304: No components of this product were found to be on the hazardous chemicals list.

SARA TITLE III (EPCRA) Section 311/312: Acute health hazard.

16. Other Information:

HMIS and NFPA Rating Scale:

HMIS: Hazardous Materials Identification System

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

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

HMIS Rating:*

| | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | B |

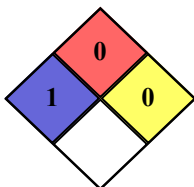
| RATING | HEALTH | FIRE HAZARD | PHYSICAL HAZARD |
|--------|--|---------------------------------------|--|
| 0 | No significant risk to health | Will not burn | Product stable under ambient temperature and condition. |
| 1 | Can cause irritation or minor reversible injury. | Must be preheated to burn | 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 B: Gloves + Safety Goggles

NFPA: National Fire Protection Association

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

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: May 29, 2015

Reason for Revision: Add necessary data to meet GHS requirements.

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