1. Company Identification and Product Hazard Overview:

Product Name: Sodium Tolyltriazole 50% Solution

Synonyms: Sodium Salt of Tolyltriazole, TTA-Na, Sodium 4-methyl-1H-benzotriazolide solution, TT50%, TTA50%

Recommended Use: Corrosion Inhibitor in water treatment programs. Protects copper piping. Used in aircraft deicing, engine coolants and cleaners.

Manufactured for: NORTH Metal and Chemical Company
P. O. Box 1985
609 E. King St.
York, PA USA 17403
Tel: 717-845-8646
Fax: 717-846-7350
Email: north@nmc-nic.com
Website: www.nmc-nic.com

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

2. Hazard Identification:

GHS Classification:
- Skin Corrosion/Irritation (Category 1B)
- Eye Damage/Irritation (Category 1)
- Acute Oral Toxicity (Category 4)
- Environmental, Hazards to the aquatic environment (Category 3)
- Acute Toxicity, Inhalation (Category 5)

Signal Word: DANGER

Pictograms:

Hazard Statements:
- H302: Harmful if swallowed.
- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage
- H402: Harmful to aquatic life
- H333: May be harmful if inhaled

Precautionary Statements:
- P260: Do not breathe mist/vapors/spray
- P280: Wear protective gloves, protective clothing such as apron, boots and safety glasses with side shields.
- P303 + P353 + P363: If on skin or hair: rinse skin with water/shower. Wash contaminated clothing before reuse.
- P310: Immediately call a doctor or physician if serious eye and skin damage develops.
- P264: Wash all affected body parts thoroughly after handling with water.
- P270: Do not eat, drink or smoke when using this product.
- P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P363: 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.
- P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do Not induce vomiting
- P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P321: Immediately call a doctor if you feel unwell.
- P273: Avoid release to the environment.
- P501: Dispose of contents/container in accordance with local/state/federal regulations.
3. Composition/Information on Ingredient:

- **Chemical Name**: Sodium Tolyltriazole 50% Solution
- **Chemical Family**: Azoles.
- **Chemical Formula/Structure**: $\text{C}_7\text{H}_6\text{N}_3\text{Na}$

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>EC</th>
<th>Compo. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolyltriazole Sodium Salt</td>
<td>64665-57-2</td>
<td>265-004-9</td>
<td>49 - 51</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>——</td>
<td>49 - 51</td>
</tr>
</tbody>
</table>

4. First Aid Measures:

- **Eyes**: Flush skin with running water for at least fifteen minutes. Remove any contact lenses. Get medical aid/attention immediately.
- **Skin**: Remove contaminated clothing. Wash skin with plenty of running water and soap. Get medical attention/aid if irritation persists. Contaminated clothing should be thoroughly washed before reuse.
- **Ingestion**: If the product is swallowed, first rinse mouth. Give small amount of water to drink. Call doctor/physician/poison center immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. If a person vomits, place him/her in recovery position so the vomit does not enter lungs.
- **Inhalation**: If safe to do so, remove individual from further exposure. Keep warm and at rest. If breathing has ceased, give artificial respiration. Do not give mouth to mouth resuscitation. Get medical attention/consult a physician immediately.
- **Note to Physician**: Treat symptomatically.
- **PPE for first responders**: Gloves and safety goggles are highly recommended.

5. Fire Fighting Measures:

- **Flash Point (°C)**: 170°C (closed up)
- **Flammable Limits**: Not available.
- **Autoignition Temp.**: Not available.
- **Flammable Class**: Not available.
- **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.
- **Unusual Fire or Explosion Hazards**: Harmful vapors may evolve during fire. Material can splatter above 100°C/212°F. Cool exposed containers with water spray to prevent over heating. Dry residue of the product may also burn.
- **Extinguishing Media**: Water spray, dry powder, or chemical-type foam. Appropriate for the surrounding area.
- **Hazardous Combustion Products**: Carbon monoxide, carbon dioxide, nitrogen oxides.
- **Fire Fighting Procedures**: Hazardous decomposition and combustion products such as carbon/nitrogen oxides can be formed if product is burning. Cool exposed containers with water spray to prevent over heating.
- **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 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. Clean the spill area with water. Do not let chemical 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.

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
Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Do not inhale vapor or mist. Use with adequate ventilation. For industrial use only! Keep away from sources of ignition. 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. Storage Temperature >=0°C. Store away from acids, oxidizing agents and metals.

8. Exposure Controls and Personal Protection:

Engineering Controls
Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Personal Protective Equipment
**Eyes and face:** Wear safety glasses with side shields or goggles when handling this material. OSHA Standard - 29 CFR 1910.133 or ANSI Z87.1 – 2010
**Skin:** Avoid direct contact with skin. Wear chemically resistant gloves, apron, boots or whole bodysuit when handling this product. OSHA Standard - 29 CFR1910.138
**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. OSHA Standard CFR 1910.134

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.

<table>
<thead>
<tr>
<th>Substance: Sodium Tolyltriazole 50% Liquid</th>
<th>CAS No.: 64665-57-2</th>
<th>OSHA STEL: N/A</th>
<th>OSHA PEL: N/A</th>
<th>ACGIH TLV: N/A</th>
<th>ACGIH STEL: N/A</th>
</tr>
</thead>
</table>

Sodium Tolyltriazole 50%
Safety Data Sheet
9. Chemical and Physical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Transparent Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Color</td>
<td>Pale Yellow to Amber Liquid</td>
</tr>
<tr>
<td>pH (10% Soln.)</td>
<td>11.5 - 13.5</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>&lt; -5 to - 10°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>~106 °C @ 1013 hPa</td>
</tr>
<tr>
<td>Flash Point</td>
<td>170°C (closed up)</td>
</tr>
<tr>
<td>Viscosity (cPs) @ 25 °C</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>0.00533 kPa @ 20 °C (Water)</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.186 - 1.210</td>
</tr>
<tr>
<td>Solubility</td>
<td>55 Vol % @ 20°C</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto Ignition Temp.</td>
<td>500°C</td>
</tr>
<tr>
<td>VOC Content</td>
<td>50% Calculated value</td>
</tr>
</tbody>
</table>

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: Carbon and nitrogen oxides.
- Incompatible Materials: Contact with strong acids may generate heat. Contact with oxidizing/reducing agents may generate heat, fires, and explosions and may involve toxic vapors. Avoid contact with heavy metals.
- Conditions to Avoid: Avoid exposure to extreme temperatures, contact with incompatible chemicals, prolonged exposure to light, and uncontrolled contact with accelerants. Protect from freezing.

11. Toxicological Information:

- Acute Toxicity Data:
  - Oral LD$_{50}$: 640 mg/kg (Rat)
  - Dermal LD$_{50}$: >2000 mg/kg (Rabbit)
  - Inhalation LD$_{50}$: No data available

- Corrosion/Irritation:
  - Skin: Semi occlusive (4h) - Corrosive
  - Eyes: Eye irritation rabbit, Corrosive

- 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 damage to the eyes. Symptoms may include pain, watering and redness of the eye.
  - Skin: Can cause serious damage to the skin. Symptoms may include irritation, pain, redness or blistering.
  - Inhalation: Can lead to coughing, nasal congestion, tightness of chest and /or shortness of breath.
  - Ingestion: Can lead to possible nausea or vomiting and cause stomach pains.

RTECS: DM1460100

Sodium Tolyltriazole 50%

Safety Data Sheet
12. Ecological Information:
All work practices must be aimed at eliminating environmental contamination.

Biodegradability : 70% after 28 D
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
Fish
: L. macrochirus LC₅₀ (96h) > 173 mg/L
: S. gairdneri LC₅₀ (96h) ~25 mg/L
: B. rerio LC₅₀(96h) 122 mg/L
Aquatic Invertebrates: Daphnia magna (Crustacea) LC₅₀ (48h) - 280 mg/L
Aquatic Plants
: Selenastrum capricornutum (Algae) EC₅₀ (Growth 72 h) - 26.2 mg/L
: Selenastrum capricornutum (Algae) EC₅₀ (Biomass - 96h) = 32mg/L

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.
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.

14. Transport Information:

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>UN Class</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOT</td>
<td>3267</td>
<td>Corrosive Liquid, Basic, Organic, N.O.S. (Sodium Tolyltriazole 50%)</td>
<td>8</td>
<td>II</td>
<td>CORROSIVE</td>
</tr>
</tbody>
</table>

15. Regulatory Information:

U.S. Federal Regulations:

TSCA: All components of this product are listed on the TSCA inventory.
CERCLA: No components of this product were found to be on the hazardous chemicals list.
SARA TITLE III Section 302/304: No components of this product were found to be on the hazardous chemicals list.
SARA TITLE III Section 311/312: Acute health hazard.
CALIFORNIA PROP 65: Not Listed
16. Other Information:

HMIS and NFPA Rating Scale:

HMIS: Hazardous Materials Identification System

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

<table>
<thead>
<tr>
<th>RATING</th>
<th>HEALTH</th>
<th>FIRE HAZARD</th>
<th>PHYSICAL HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No significant risk to</td>
<td>Will not burn</td>
<td>Product stable under ambient temperature</td>
</tr>
<tr>
<td>1</td>
<td>Can cause irritation or minor reversible injury.</td>
<td>Must be preheated to burn</td>
<td>Product can become unstable at high temperatures and pressures.</td>
</tr>
<tr>
<td>2</td>
<td>Can cause temporary or residual injury</td>
<td>Ignites when moderately heated</td>
<td>Product can become unstable and cause violent chemical reaction at normal pressures and temperatures</td>
</tr>
<tr>
<td>3</td>
<td>Can cause serious injury</td>
<td>Ignition occurs at normal temperature</td>
<td>Product capable of forming explosive mixtures and is capable of detonation in presence of strong initiating source.</td>
</tr>
<tr>
<td>4</td>
<td>Can be lethal from single or repeated exposure.</td>
<td>Extremely flammable</td>
<td>Product is highly explosive and unstable. Exothermic reactions possible with decomposition, polymerization, reaction with water or self reaction</td>
</tr>
</tbody>
</table>

**Personal Protection Code C:** Gloves + Safety Goggles + Apron

NFPA: National Fire Protection Association

<table>
<thead>
<tr>
<th>RATING</th>
<th>HEALTH</th>
<th>FIRE HAZARD</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Minimal Hazard</td>
<td>Will not burn</td>
<td>Normally Stable</td>
</tr>
<tr>
<td>1</td>
<td>Can cause significant irritation</td>
<td>Must be preheated to burn</td>
<td>Unstable at high temperatures</td>
</tr>
<tr>
<td>2</td>
<td>Can cause temporary incapacitation or residual injury</td>
<td>Ignites when moderately heated</td>
<td>Normally unstable. Can readily go under violent chemical reaction but do not detonate.</td>
</tr>
<tr>
<td>3</td>
<td>Can cause permanent injury.</td>
<td>Ignition occurs at normal temperature</td>
<td>Capable of detonation, or of explosive reaction, but requires a strong ignition source.</td>
</tr>
<tr>
<td>4</td>
<td>Can be lethal.</td>
<td>Extremely flammable</td>
<td>May explode at normal temperatures and pressures</td>
</tr>
</tbody>
</table>

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

Special (White): COR = Corrosive

Revision Date: June 1, 2015

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

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