Material Safety Data Sheet

Distributed by: North Metal & Chemical Co.
609 E. King St.
York, PA  17403

Date of Revision: 8/2008  Phone: (717) 845-8646; email: north@nmc-nic.com

Sodium Tolyltriazole 50% Solution

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Tolyltriazole sodium salt 50% solution, TTA 50%, sodium tolyltriazole 50% solution, TT50%
Chemical Formula: C7H6N3Na
CAS Number: 64665-57-2
Other Designations: Sodium 4-methyl-1H-benzotriazolide solution
General Use: Anticorrosion additive
Emergency Telephone: 1-800-424-9300 (Chemtrec)

Section 2 - Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Number</th>
<th>EINECS/ELINCS</th>
<th>% wt or % vol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolyltriazole sodium salt</td>
<td>64665-57-2</td>
<td>265-004-9</td>
<td>≤ 50</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td></td>
<td>≤ 50</td>
</tr>
</tbody>
</table>

Appearance/General Info: Yellow to amber Liquid.

INGREDIENT(s) OSHA PEL ACGIH TLV NIOSH REL IDLH
Tolyltriazole sodium salt 50% solution None estab. None estab. None estab. None estab.

Section 3 - Hazards Identification

Danger! Corrosive. May cause central nervous system effects. May cause cardiac disturbances. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns.

Potential Health Effects

Target Organs:
Primary Entry Routes: Eye, skin and ingestion
Inhalation: Causes chemical burns to the respiratory tract. May cause central nervous system effects including vertigo, anxiety, depression, muscle incoordination, and emotional instability. Aspiration may lead to pulmonary edema. May cause cardiac abnormalities. May cause systemic effects.
Eye: Causes eye burns. May cause chemical conjunctivitis and corneal damage.
Skin: Causes skin burns. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.
Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract.
Carcinogenicity: IARC, NTP, ACGIH, and OSHA do not list Tolyltriazole sodium salt 50% solution as a carcinogen.
Medical Conditions Aggravated by Long-Term Exposure:

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
**Ingestion:** Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

**Note to Physicians:** Treat symptomatically and supportively.

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### Section 5 - Fire-Fighting Measures

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>&gt;200 °F</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>&gt;500 °C</td>
</tr>
<tr>
<td>LEL</td>
<td>N/A</td>
</tr>
<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Flammability Classification:** Non-combustible

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Do NOT get water inside containers.

**Unusual Fire or Explosion Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated.

**Hazardous Combustion Products:** Substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode.

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### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

**Small Spills:** Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container.

**Large Spills**

- **Containment:** For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.
- **Cleanup:** Provide ventilation.
- **Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

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### Section 7 - Handling and Storage

**Handling Precautions:** Do not breathe vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use only in a chemical fume hood. Discard contaminated shoes.

**Storage Requirements:** Store in a cool, dry place. Keep container closed when not in use. Store in a tightly closed container. Corrosives area.

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### Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:**

- **Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:**

- **Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**Protective Clothing/Equipment:** Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

### Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Yellow to brownish red liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>mild odor</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>25 mbar @ 20°C</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td></td>
</tr>
<tr>
<td>Formula Weight</td>
<td>155.1</td>
</tr>
<tr>
<td>Density @ 20 °C</td>
<td>1.18 g/ml</td>
</tr>
<tr>
<td>Specific Gravity (H₂O=1, at 4 °C):</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>11.5 – 12.0 (10% solution @ 25°C)</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>miscible</td>
</tr>
<tr>
<td>Other Solubilities</td>
<td>easily soluble in Methanol or Acetone</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;108 °C (227 °F)</td>
</tr>
<tr>
<td>Freezing/Melting Point</td>
<td>14 - 23 °F</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Refractive Index</td>
<td></td>
</tr>
<tr>
<td>Surface Tension</td>
<td></td>
</tr>
<tr>
<td>% Volatile</td>
<td>50 %</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&lt; 1 (n-Butyl Acetate = 1)</td>
</tr>
</tbody>
</table>

### Section 10 - Stability and Reactivity

Stability: Tolyltriazole sodium salt 50% solution is stable at room temperature in closed container under normal storage and handling conditions.

Polymerization: Hazardous polymerization will not occur.

Chemical Incompatibilities: Incompatible with oxidizing and reducing agents.

Conditions to Avoid: Ignition sources, dust generation, excess heat, strong oxidants.

Hazardous Decomposition Products: Thermal oxidative decomposition of Tolyltriazole sodium salt 50% solution can produce nitrogen oxides, carbon monoxide and carbon dioxide.

### Section 11 - Toxicological Information

**Toxicity Data:**

<table>
<thead>
<tr>
<th>Toxicity Irritation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral (rat) LD₅₀</td>
<td>1980mg/kg</td>
</tr>
<tr>
<td>Dermal (rabbit) LD₅₀</td>
<td>2000 mg/kg</td>
</tr>
</tbody>
</table>

Eye Irritation (Rabbit): Cause eye irritation

Skin Irritation (Rabbit): Corrosive

* See NIOSH, RTECS(OSH890006), for additional toxicity data.

### Section 12 - Ecological Information

Ecotoxicity: No data available.

Environmental:

Physical: No information found.

### Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Disposal Regulatory Requirements:

Container Cleaning and Disposal:

### Section 14 - Transport Information

**DOT Transportation Data (49 CFR 172.101):**

- Shipping Name: Corrosive liquid, basic, Organic, N.O.S. solution (sodium tolytriazole)
- Shipping Symbols: See BOL
- Hazard Class: 8
- ID No.: UN3267
- Packing Group: II
- Label: Corrosive

### Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 64665-57-2 is listed on the TSCA inventory.

**Health & Safety Reporting List**
None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**
None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**
None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**
None of the chemicals in this material have a SNUR under TSCA.

**SARA**

**CERCLA Hazardous Substances and corresponding RQs**
None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**
None of the chemicals in this product have a TPQ.

**Section 313**
No chemicals are reportable under Section 313.

**Clean Air Act:**
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

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

**STATE**
CAS# 64665-57-2 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California No Significant Risk Level:** None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**
Not available.

**Risk Phrases:**

**Safety Phrases:**
S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

**Canada - DSL/NDSL**

**Canada - WHMIS**
TT50%
HS#2933 99 82 90
CAS # 64665-57-2
Corrosive Liquid Class 8, UN 3267 PGII
WHMIS Class E, D2B

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**Section 16 - Other Information**

**Disclaimer:** All information, recommendations and suggestions appearing herein are based upon sources believed to be reliable: However, it is the users responsibility to determine the safety, toxicity and suitability for its own use of this product. WEGO CHEMICAL & MINERAL CORP. DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE USE BY OTHERS OF THIS PRODUCT.