1,1,3,3-Tetramethylurea

**Section 1. Chemical Product and Company Identification**

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>Personal Protective Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>See Section 15.</td>
</tr>
</tbody>
</table>

**Catalog Number(s).** T2268
**CAS#** 632-22-4
**RTECS** YU2625000
**TSCA** TSCA 8(b) inventory: 1,1,3,3-Tetramethylurea
**CI#** Not available.

**Manufacturer**
SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**Commercial Name(s)** Not available.
**Synonym** Not available.

**Chemical Name** 1,1,3,3-Tetramethylurea
**Chemical Family** Not available.
**Chemical Formula** C5-H12-N2-O

**Supplier**
SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**Section 2. Composition and Information on Ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 1,1,3,3-Tetramethylurea</td>
<td>632-22-4</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

**Toxicological Data on Ingredients**

1,1,3,3-Tetramethylurea:

**ORAL (LD50):** Acute: 794 mg/kg [Rat]. 2920 mg/kg [Mouse].

**DERMAL (LD50):** Acute: 3160 mg/kg [Rabbit].

**Section 3. Hazards Identification**

**Potential Acute Health Effects**
Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects**

- **CARCINOGENIC EFFECTS:** Not available.
- **MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells.
- **TERATOGENIC EFFECTS:** Classified POSSIBLE for human.
- **DEVELOPMENTAL TOXICITY:** Classified Reproductive system/toxin/female [POSSIBLE].
  Repeated or prolonged exposure is not known to aggravate medical condition.
Section 4. First Aid Measures

Eye Contact
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation
Not available.

Ingestion
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion
Not available.

Section 5. Fire and Explosion Data

Flammability of the Product
Combustible.

Auto-Ignition Temperature
Not available.

Flash Points

Flammable Limits
Not available.

Products of Combustion
These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).

Fire Hazards in Presence of Various Substances
Flammable in presence of open flames and sparks, of heat, of oxidizing materials. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions
SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards
Not available.

Special Remarks on Explosion Hazards
Not available.

Section 6. Accidental Release Measures

Small Spill
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill
Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Continued on Next Page
Section 7. Handling and Storage

Precautions
Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents.

Storage
Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 23°C (73.4°F).

Section 8. Exposure Controls/Personal Protection

Engineering Controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits
Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance
Liquid.

Molecular Weight
116.16 g/mole

pH (1% soln/water)
Not available.

Boiling Point
177°C (350.6°F)

Melting Point
-1°C (30.2°F)

Critical Temperature
Not available.

Specific Gravity
0.9687 (Water = 1)

Vapor Pressure
Not available.

Vapor Density
Not available.

Volatility
Not available.

Odor Threshold
Not available.

Water/Oil Dist. Coeff.
The product is more soluble in oil; log(oil/water) = 0.2

Ionicity (in Water)
Not available.

Dispersion Properties
See solubility in water.

Solubility
Soluble in cold water.

Section 10. Stability and Reactivity Data

Stability
The product is stable.

Instability Temperature
Not available.

Conditions of Instability
Heat, ignition sources, incompatible materials, moisture

Incompatibility with various substances
Reactive with reducing agents.

Continued on Next Page
### Section 11. Toxicological Information

<table>
<thead>
<tr>
<th><strong>Routes of Entry</strong></th>
<th>Absorbed through skin. Eye contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toxicity to Animals</strong></td>
<td>Acute oral toxicity (LD50): 794 mg/kg [Rat]. Acute dermal toxicity (LD50): 3160 mg/kg [Rabbit].</td>
</tr>
<tr>
<td><strong>Chronic Effects on Humans</strong></td>
<td><strong>MUTAGENIC EFFECTS:</strong> Mutagenic for mammalian somatic cells. <strong>TERATOGENIC EFFECTS:</strong> Classified POSSIBLE for human. <strong>DEVELOPMENTAL TOXICITY:</strong> Classified Reproductive system/toxin/female [POSSIBLE].</td>
</tr>
<tr>
<td><strong>Other Toxic Effects on Humans</strong></td>
<td>Hazardous in case of skin contact (irritant), of ingestion, of inhalation.</td>
</tr>
<tr>
<td><strong>Special Remarks on Toxicity to Animals</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Special Remarks on Chronic Effects on Humans</strong></td>
<td>May cause adverse reproductive effects (maternal, fertility) and birth defects (teratogen). May affect genetic material (mutagen).</td>
</tr>
<tr>
<td><strong>Special Remarks on other Toxic Effects on Humans</strong></td>
<td>Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: Inhalation of vapor may cause respiratory tract irritation. Ingestion: May cause digestive tract irritation. May affect behavior (somnolence, ataxia, tremor)</td>
</tr>
</tbody>
</table>

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th><strong>Ecotoxicity</strong></th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BOD5 and COD</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Products of Biodegradation</strong></td>
<td>Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.</td>
</tr>
<tr>
<td><strong>Toxicity of the Products of Biodegradation</strong></td>
<td>The products of degradation are less toxic than the product itself.</td>
</tr>
<tr>
<td><strong>Special Remarks on the Products of Biodegradation</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Section 13. Disposal Considerations

| **Waste Disposal** | Waste must be disposed of in accordance with federal, state and local environmental control regulations. |

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*Continued on Next Page*
### Section 14. Transport Information

**DOT Classification**
Not a DOT controlled material (United States).

**Identification**
Not applicable.

**Special Provisions for Transport**
Not applicable.

**DOT (Pictograms)**

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### Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**
TSCA 8(b) inventory: 1,1,3,3-Tetramethylurea

**California Proposition 65 Warnings**
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Regulations**

**Other Classifications**

<table>
<thead>
<tr>
<th>Classification</th>
<th>WHMIS (Canada)</th>
<th>DSCL (EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not controlled under WHMIS (Canada).</td>
<td>R22- Harmful if swallowed. R36/38- Irritating to eyes and skin. R40- Possible risks of irreversible effects. R62- Possible risk of impaired fertility. R63- Possible risk of harm to the unborn child.</td>
</tr>
</tbody>
</table>

**HMIS (U.S.A.)**

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>National Fire Protection Association (U.S.A.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Flammability</td>
</tr>
<tr>
<td>2</td>
<td>Reactivity</td>
</tr>
<tr>
<td>0</td>
<td>Specific hazard</td>
</tr>
</tbody>
</table>

**WHMIS (Canada) (Pictograms)**

**DSCL (Europe) (Pictograms)**

**TDG (Canada) (Pictograms)**

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*Continued on Next Page*
Section 16. Other Information

MSDS Code 1384T

References Not available.

Other Special Considerations Not available.


CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.