Section 1: Product Identification
Chemical Name: Pentakis(dimethylamino)pentatantalum(V), 99%
Product Number: 73-0800
CAS Registry Number: 19824-59-0
Formula: Ta(N(CH3)2)5
EINECS Number: None
Chemical Family: Metal amide salt
Synonym: None

Section 2: Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percent</th>
<th>ACGIH (TWA)</th>
<th>OSHA (PEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title Compound</td>
<td>19824-59-0</td>
<td>100%</td>
<td>no data</td>
<td>no data</td>
</tr>
</tbody>
</table>

Section 3: Hazards Identification
Emergency Overview: Dimethylamine hydrolysis product is extremely corrosive to tissue of the mucous membranes and upper respiratory tract, eyes and skin.
Primary Routes of Exposure: Ingestion, inhalation of dust and vapor
Eye Contact: Causes burns to the eyes.
Skin Contact: Causes burns to the skin.
Inhalation: (As vapor or aerosol) Corrosive to the nose, mucous membranes and respiratory tract.
Ingestion: May lead to burning sensation, dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, and convulsions.
Acute Health Effects: Corrosive to skin, eyes and respiratory tract. Diethylamine is toxic and corrosive if swallowed, inhaled, or absorbed through skin. Induces syncope.
Chronic Health Effects: No information available on long-term exposure to this material.
NTP: No
IARC: No
OSHA: No

SECTION 4: First Aid Measures
Eye Exposure: Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.
Skin Exposure: Wash the affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.
Inhalation: Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.
Ingestion: Wash the affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.
MATERIAL SAFETY DATA SHEET

SECTION 5: Fire Fighting Measures

Flash Point: no data
Autoignition Temperature: no data
Explosion Limits: none
Extinguishing Medium: carbon dioxide, foam or dry powder
Special Fire Fighting Procedures: If this product is involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.
Hazardous Combustion and Decomposition Products: If involved in a fire this material may emit toxic and corrosive fumes.
Unusual Fire or Explosion Hazards: Moisture will produce a flammable gas.

SECTION 6: Accidental Release Measures

Spill and Leak Procedures: Small spills can be mixed with vermiculite, sodium carbonate or other suitable non combustible adsorbent and swept up.

SECTION 7: Handling and Storage

Handling and Storage: Store in a tightly sealed container away from moisture. Handle and store the product under an inert atmosphere of nitrogen or argon.

SECTION 8: Exposure Controls and Personal Protection

Eye Protection: Always wear approved safety glasses when handling a chemical substance in the laboratory.
Skin Protection: Wear protective clothing and gloves.
Ventilation: Material may form a fine dust. If possible, handle the material in an efficient fume hood.
Respirator: If ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 1910.134.
Ventilation: Material may form a fine dust. If possible, handle the material in an efficient fume hood.
Additional Protection: No additional protection required.

SECTION 9: Physical and Chemical Properties

Color and Form: orange xtl
Molecular Weight: 401.33
Melting Point: >100°C dec.
Boiling Point: subl. 100°C (1mm)
Vapor Pressure: no data
Specific Gravity: no data
Odor: none
Solubility in Water: reacts with water

SECTION 10: Stability and Reactivity

Stability: air and moisture sensitive
Hazardous Polymerization: no hazardous polymerization
Conditions to Avoid: contact with moisture
Incompatibility: water, halogens, and strong oxidizing agents.
Decomposition Products: carbon monoxide, carbon dioxide, tantalum oxide, and organic fumes
MATERIAL SAFETY DATA SHEET

SECTION 11: Toxicological Information
RTECS Data: No information available in the RTECS files.
Carcinogenic Effects: No data
Mutagenic Effects: No data
Teratogenic Effects: No data

SECTION 12: Ecological Information
Ecological Information: No information available

SECTION 13: Disposal Considerations
Disposal: Dispose of according to local, state and federal regulations.

SECTION 14: Transportation
Shipping Name (CFR): Water-reactive solid, corrosive, N.O.S.
Hazard Class (CFR): 4.3
Additional Hazard Class (CFR): 8
Packaging Group (CFR): II
UN ID Number (CFR): UN# 3131
Shipping Name (IATA): Water-reactive solid, corrosive, N.O.S.
Hazard Class (IATA): 4.3
Additional Hazard Class (IATA): 8
Packaging Group (IATA): II
UN ID Number (IATA): UN# 3131

SECTION 15: Regulatory Information
TSCA: Not listed in the TSCA inventory.
SARA (Title 313): Title compound not listed.
Second Ingredient: None
Third ingredient: None

SECTION 16: Other Information
Disclaimer: The information herein is believed to be accurate and reliable as of the date compiled. However, Strem Chemicals, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information contained in this document or any use of the product based on this information.
Preparation Date: 3/11/2002
Revision Date: 8/02/2011