MATERIAL SAFETY DATA SHEET

NAME USED ON LABEL: TIN IV BROMIDE -SNT7915
CHEMICAL NAME: TIN IV BROMIDE
SYNONYMS: TIN TETRABROMIDE, STANNIC BROMIDE - ANHYDROUS
CHEMICAL FAMILY: TIN COMPOUND
FORMULA: SnBr₄

HMIS CODES     HEALTH: 3    FLAMMABILITY: 0    REACTIVITY: 2

INGREDIENTS

<table>
<thead>
<tr>
<th>Identity</th>
<th>CAS No.</th>
<th>%</th>
<th>TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIN IV BROMIDE</td>
<td>7789-67-5</td>
<td>&gt;95</td>
<td>2 mg/m³ as tin</td>
<td>2 mg/m³ as tin</td>
</tr>
<tr>
<td>OTHER ORGANOTINS</td>
<td>&lt;5</td>
<td></td>
<td>2 mg/m³ as tin</td>
<td>2 mg/m³ as tin</td>
</tr>
</tbody>
</table>

PHYSICAL DATA

Boiling Point: 203-4°C
Specific Gravity: 3.34
Vapor Density (air=1): >1
% volatiles NA
Molecular Weight: 438.31
Appearance & Color: Off-white to orange solid, fumes in air; acrid odor

FIRE & EXPLOSION DATA

Flash Point, TCC: not flammable
Autoignition Temp.: NA
Flammability Limits- LEL: NA    UEL: NA

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.
Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.
Unusual Fire and Explosion Hazards: Irritating fumes and acid vapors may develop when material is exposed to water, elevated temperatures or open flame.

-1-(SNT7915)
ENVIRONMENTAL INFORMATION

Spill response: Cover spill with absorbent material. Transfer to a suitable container for disposal.

Recommended Disposal: Dispose of absorbent material as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe eye irritation.

Skin contact: Will produce irritation or contact dermatitis which may be delayed several hours. May cause burns. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of vapors or particulates of may irritate the respiratory tract. Overexposure may produce coughing, headache and nausea. The onset of symptoms may be delayed until several hours after exposure.

Acute Toxicity: ivn-mus, LC50: 18mg/kg
Chronic Toxicity: There are no known chronic effects related to this compound.

SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water. Note to physician: Application of corticosteroid creams has been effective in treating severe skin irritation. If blisters develop, they may require abrasion to promote healing.

INHALATION: Move exposed individual to fresh air. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

REACTIVITY DATA

Stability: Stable
Conditions to avoid: N/A
Incompatibility (materials to avoid): Water, acids, bases, oxidizers, reducers, metal containers and direct sunlight.
Hazardous decomposition products: Hydrogen bromide, tin oxide.

-2-(SNT7915)
SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.
Respiratory Protection: If exposure exceeds TLV air-supplied or combination organic vapor acid gas respirator.
Eye and Face Protection: Chemical worker’s goggles. Do not wear contact lenses.
Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Store in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: CORROSIVE SOLID, N.O.S. (TIN IV BROMIDE)
DOT HAZARD CLASS: 8
DOT LABEL: CORROSIVE
DOT ID No: UN1759

Prepared by safety and environmental affairs

ISSUE DATE SNT7915: 10/4/03
SUPERSEDES: 4/5/01

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Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose, LC: Lethal Concentration; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; HMIS: Hazardous Material information System; CAS No.: Chemical Abstract Service Registration Number

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