1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product name</th>
<th>Allytributylstannane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Number</td>
<td>271411</td>
</tr>
<tr>
<td>Brand</td>
<td>Sigma Aldrich</td>
</tr>
<tr>
<td>Supplier</td>
<td>Sigma Aldrich Corporation</td>
</tr>
<tr>
<td>Telephone</td>
<td>+1 800-525-5683</td>
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<tr>
<td>Fax</td>
<td>+1 800-525-5652</td>
</tr>
<tr>
<td>Emergency Phone #</td>
<td>(314) 776-8555</td>
</tr>
<tr>
<td>Preparation Information</td>
<td>Sigma Aldrich Corporation</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Toxic by ingestion, harmful by skin absorption, irritant

GHS Classification
Acute toxicity, Oral (Category 3)
Acute toxicity, Dermal (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity - repeated exposure (Category 1)
Acute aquatic toxicity (Category 1)
Chronic aquatic toxicity (Category 1)

GHS Label elements, including precautionary statements

Pictograms
Signal word: Danger

Hazard statement(s)
H301: Toxic if swallowed.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H372: Causes damage to organs through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing.
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

**CAS No.**
EC-No. 24650-32-7
Index-No. 246-494-3

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If Inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Normal measures for preventive fire protection.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use appropriate glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands.

Eye protection
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: clear, liquid
Colour: colourless

Safety data
pH: no data available
Melting point/freezing point: no data available
Boiling point: 88 - 92 °C (190 - 198 °F) at 1.3 hPa (0.2 mmHg) - liq.
Flash point: 103 °C (217 °F) - closed cup
Ignition temperature: no data available
Autoignition temperature: no data available

Lower explosion limit: no data available
Upper explosion limit: no data available
Vapour pressure: no data available
Density: 1.068 g/cm³ at 25 °C (77 °F)
Water solubility: no data available
Partition coefficient: n-octanol/water: no data available
Relative vapour density: no data available
Odour: no data available
Odour Threshold: no data available
Evaporation rate: no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
no data available

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions: Carbon oxides, Tin(II) oxides
Other decomposition products: no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Oral LD₅₀: no data available
Inhalation LC₅₀: no data available
Dermal LD₅₀: no data available
Other information on acute toxicity: no data available

Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
no data available
Respiratory or skin sensitization
no data available
Genotoxicity
no data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a
carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
no data available

Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard
no data available

Potential health effects
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: Toxic if swallowed.
Skin: Causes skin irritation.
Eyes: Causes eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
no data available

Additional information
RTECS: Not available

12. ECOLOGICAL INFORMATION
Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBTK and vPvP assessment
no data available

Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION
DOT (US)
UN number: 2788 Class: 6.1 Packing group: III
Proper shipping name: Organotin compounds, liquid, n.o.s. (Allyltributylstannane)
Marine pollutant: Marine pollutant
Poison Inhalation Hazard: No

IMDG
UN number: 2788 Class: 6.1 Packing group: III
Emergency No: F.A. S-A
Proper shipping name: ORGANOTIN COMPOUND, LIQUID, N.O.S. (Allyltributylstannane)
Marine pollutant: Marine pollutant

IATA
UN number: 2788 Class: 6.1 Packing group: III
Proper shipping name: Organotin compound, liquid, n.o.s. (Allyltributylstannane)

15. REGULATORY INFORMATION
OSHA Hazards
Toxic by ingestion. Harmful by skin absorption. Irritant

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components
Allyltributylstannane
CAS No.: 24850-32-7
Revision Date: 2009-07-17

New Jersey Right To Know Components
Allyltributylstannane
CAS No.: 24850-32-7
Revision Date: 2009-07-17

California Prop. 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION
Further Information
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