Section 1 - Product and Company Information

Product Name: TRIBUTYL Tin ISOCYANATE
Product Number: 530786
Brand: ALDRICH

Company: Sigma-Aldrich Canada, Ltd
Address: 2149 Winston Park Drive
Oakville ON L6H 6J8 CA
Technical Phone: 9058299500
Fax: 9058299292
Emergency Phone: 800-424-9300

Section 2 - Composition/Information on Ingredient

Substance Name: TRIBUTYL Tin ISOCYANATE
CAS #: 681-99-2
SARA 313: No

Formula: C13H27NOSN
Synonyms:
Stannane, tributylisocyanato- * Tin, tributyl-, isothiocyanate * Tributylisocyanatostannane * Tributylstannyl isocyanate * Tributyltin isocyanate * Tri-n-butyltin isocyanate *
Tributyltin isothiocyanate

RTECS Number: WH8583500

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Harmful.
Harmful by inhalation, in contact with skin and if swallowed.
Irritating to eyes, respiratory system and skin.
Possible sensitizer. Lachrymator.

HMIS RATING
HEALTH: 2
FLAMMABILITY: 1
REACTIVITY: 1

NFPA RATING
HEALTH: 2
FLAMMABILITY: 1
REACTIVITY: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT
230 °F   110 °C   Method: closed cup

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing.

STORAGE
Suitable: Keep tightly closed. Store under nitrogen. Store at 2-8°C

SPECIAL REQUIREMENTS
Hygroscopic.

Section 8 - Exposure Controls / PPE
ENGINEERING CONTROLS
Safety shower and eye bath. Use only in a chemical fume hood.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling. Remove and wash contaminated clothing promptly.

EXPOSURE LIMITS, RTECS
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<th>Country</th>
<th>Source</th>
<th>Type</th>
<th>Value</th>
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<td>ACGIH</td>
<td>TWA</td>
<td>0.1 MG(SN)/M3</td>
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<tr>
<td>USA</td>
<td>MSHA Standard-air</td>
<td>TWA</td>
<td>0.1 MG(SN)/M3</td>
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<tr>
<td>USA</td>
<td>OSHA.</td>
<td>PEL</td>
<td>8H TW 0.1 MG(SN)/M3</td>
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<td>New Zealand</td>
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<td>check ACGIH TLV</td>
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Section 9 - Physical/Chemical Properties

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<td>MP/MP Range</td>
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<td>Vapor Pressure</td>
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<td>Miscellaneous Data</td>
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Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Conditions to Avoid: Moisture.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen cyanide, Tin/tin oxides.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: Causes skin irritation.
Skin Absorption: Harmful if absorbed through skin.
Eye Contact: Lachrymator. Causes eye irritation.
Inhalation: Material is irritating to mucous membranes and upper respiratory tract. Harmful if inhaled.
Ingestion: Harmful if swallowed.

SENSITIZATION
Respiratory: May cause allergic respiratory reaction.

SIGNS AND SYMPTOMS OF EXPOSURE
Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

TOXICITY DATA
Intravenous
Mouse 6300 UG/KG
LD50

CHRONIC EXPOSURE - CARCINOGEN
Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

ACGIH CARCINOGEN LIST
Rating: A4

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.
Section 14 - Transport Information

DOT
Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
UN#: 3082
Class: 9
Packing Group: Packing Group III
Hazard Label: Class 9
PIH: Not PIH

IATA
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.
IATA UN Number: 3082
Hazard Class: 9
Packing Group: III

Section 15 - Regulatory Information

EU DIRECTIVES CLASSIFICATION
Symbol of Danger: T-N
Indication of Danger: Toxic. Dangerous for the environment.
Risk Statements: Harmful in contact with skin. Toxic if swallowed. Irritating to eyes and skin. Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S: 35-36/37/39-45-60-61
Safety Statements: This material and its container must be disposed of in a safe way. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Harmful.
Risk Statements: Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.
US Statements: Possible sensitizer. Lachrymator.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: No
NDSL: No

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.
WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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