1 Identification

- Product name
- Trade name: Tributyl(1-ethoxyvinyl)tin, 97%
- Item number: 50-3015
- CAS Number: 97674-02-7

Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Strem Chemicals, Inc.
  7 Mulliken Way
  NEWBURYPORT, MA 01950
  USA
  info@strem.com
- Information department: Technical Department
- Emergency telephone number:
  EMERGENCY: CHEMTREC: + 1 (800) 424-9300
  During normal opening times: +1 (978) 499-1600

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS06 Skull and crossbones
  Acute Tox. 3 H301 Toxic if swallowed.
  Acute Tox. 3 H311 Toxic in contact with skin.
  Acute Tox. 3 H331 Toxic if inhaled.

  - GHS08 Health hazard
  STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.

  - GHS07
  Skin Irrit. 2 H315 Causes skin irritation.
  Eye Irrit. 2A H319 Causes serious eye irritation.
  STOT SE 3 H335 May cause respiratory irritation.

- Label elements
- GHS label elements
  The substance is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms
  GHS06 GHS07 GHS08

- Signal word Danger

(Contd. on page 2)
Trade name: Tributyl(1-ethoxyvinyl)tin, 97%

- Hazard-determining components of labeling:
  Tributyl(1-ethoxyvinyl)tin, 97%

- Hazard statements
  H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.
  H315 Causes skin irritation.
  H319 Causes serious eye irritation.
  H335 May cause respiratory irritation.
  H372 Causes damage to organs through prolonged or repeated exposure.

- Precautionary statements
  P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P321 Specific treatment (see on this label).
  P403+P233 Store in a well-ventilated place. Keep container tightly closed.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    Health = 2
    Fire = 0
    Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    HEALTH Health = *2
    FIRE Fire = 0
    REACTIVITY Reactivity = 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  97674-02-7 Tributyl(1-ethoxyvinyl)tin, 97%

4 First-aid measures

- Description of first aid measures
  - General information:
    Immediately remove any clothing soiled by the product.
    Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
    Remove breathing apparatus only after contaminated clothing have been completely removed.
    In case of irregular breathing or respiratory arrest provide artificial respiration.
  - After inhalation:
    Supply fresh air or oxygen; call for doctor.
    In case of unconsciousness place patient stably in side position for transportation.
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- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
  - Most important symptoms and effects, both acute and delayed
    No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
  During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
  - Protective equipment: Mouth respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Mount respiratory protective device.
- **Environmental precautions:**
  No special measures required.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- **Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
  - Precautions for safe handling
    Ensure good ventilation/exhaustion at the workplace.
    Open and handle receptacle with care.
    Prevent formation of aerosols.
  - Information about protection against explosions and fires:
    Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      No special requirements.
    - Information about storage in one common storage facility:
      Not required.
    - Further information about storage conditions:
      Keep receptacle tightly sealed.
    - Specific end use(s):
      No further relevant information available.
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Store protective clothing separately.
    Avoid contact with the eyes and skin.
  - Breathing equipment:
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
  - Protection of hands:

  ![Protective gloves]
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - Material of gloves
    The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
  - Penetration time of glove material
    The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - Eye protection:

  ![Tightly sealed goggles]

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Fluid
  - Color: Not determined.
  - Odor: Characteristic
  - Odor threshold: Not determined.
- pH-value: Not determined.
42. Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

43. Flash point:
Not applicable.

44. Flammability (solid, gaseous):
Not determined.

45. Ignition temperature:
Decomposition temperature: Not determined.

46. Auto igniting:
Not determined.

47. Danger of explosion:
Product does not present an explosion hazard.

48. Explosion limits:
Lower: Not determined.
Upper: Not determined.

49. Vapor pressure:
Not determined.

50. Density:
Relative density: Not determined.
Vapor density: Not determined.
Evaporation rate: Not determined.

51. Solubility in / Miscibility with:
Water: Not miscible or difficult to mix.

52. Partition coefficient (n-octanol/water): Not determined.

53. Viscosity:
Dynamic: Not determined.
Kinematic: Not determined.

54. Solvent content:
Organic solvents: 0.0 %
VOC content: 0.0 g/l / 0.00 lb/gl

55. Other information
No further relevant information available.

10 Stability and reactivity

56. Reactivity:
No further relevant information available.

57. Chemical stability

58. Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

59. Possibility of hazardous reactions
No dangerous reactions known.

60. Conditions to avoid
No further relevant information available.

61. Incompatible materials:
No further relevant information available.

62. Hazardous decomposition products:
No dangerous decomposition products known.

11 Toxicological information

63. Information on toxicological effects

64. Acute toxicity:

65. Primary irritant effect:
	on the skin: Irritant to skin and mucous membranes.
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- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    Substance is not listed.
  - NTP (National Toxicology Program)
    Substance is not listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    Substance is not listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Additional ecological information:
    - General notes: Not known to be hazardous to water.
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA
    UN2788
- UN proper shipping name
  - DOT, IATA
    Organotin compounds, liquid, n.o.s.
  - IMDG
    ORGANOTIN COMPOUND, LIQUID, N.O.S.
Trade name: Tributyl(1-ethoxyvinyl)tin, 97%

- Transport hazard class(es)
  - DOT
    - Class 6.1 Toxic substances
    - Label 6.1

- IMDG, IATA
  - Class 6.1 Toxic substances
  - Label 6.1

- Packing group
  - DOT, IMDG, IATA III

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user
  - EMS Number: F-A,S-A
  - Stowage Category A
  - Stowage Code SW2 Clear of living quarters.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.

- Transport/Additional information:
  - DOT
    - Quantity limitations On passenger aircraft/rail: 60L
      On cargo aircraft only: 220L

- IMDG
  - Limited quantities (LQ) 5L
  - Excepted quantities (EQ) Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml

- UN "Model Regulation": UN 2788 ORGANOTIN COMPOUNDS, LIQUID, N.O.S., 6.1, III

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances):
      Substance is not listed.
    - Section 313 (Specific toxic chemical listings):
      Substance is not listed.
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- **TSCA (Toxic Substances Control Act):**
  Substance is not listed.

- **Proposition 65**
  Substance is not listed.

- **Chemicals known to cause cancer:**
  Substance is not listed.

- **Chemicals known to cause reproductive toxicity for females:**
  Substance is not listed.

- **Chemicals known to cause reproductive toxicity for males:**
  Substance is not listed.

- **Chemicals known to cause developmental toxicity:**
  Substance is not listed.

- **Carcinogenic categories**
  Substance is not listed.

- **EPA (Environmental Protection Agency)**
  Substance is not listed.

- **TLV (Threshold Limit Value established by ACGIH)**
  Substance is not listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  Substance is not listed.

- **GHS label elements**
  The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**
  ![GHS06](image1) ![GHS07](image2) ![GHS08](image3)

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  Tributyl(1-ethoxyvinyl)tin, 97%

- **Hazard statements**
  H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.
  H315 Causes skin irritation.
  H319 Causes serious eye irritation.
  H335 May cause respiratory irritation.
  H372 Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**
  P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
  P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P321 Specific treatment (see on this label).
  P403+P233 Store in a well-ventilated place. Keep container tightly closed.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Technical Department.
· Contact: Technical Director
· Date of preparation / last revision 07/30/2016 / -
· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Acute Tox. 3: Acute toxicity, Hazard Category 3
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1