Material Safety Data Sheet
Tri-n-butyltin chloride, tech., 90%

ACC# 65566

Section 1 - Chemical Product and Company Identification

MSDS Name: Tri-n-butyltin chloride, tech., 90%
Catalog Numbers: AC139350000, AC139350050, AC139351000, AC139355000
Synonyms: Chlorotributyltin.
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
1461-22-9	Tri-n-butyltin chloride	90	215-958-7

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid.
Warning! Harmful if swallowed. Stench. Causes eye and skin irritation. May cause respiratory and digestive tract irritation. This substance has caused adverse reproductive and fetal effects in animals.
Target Organs: None.

Potential Health Effects
Eye: Causes eye irritation.
Skin: Causes skin irritation.
Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Inhalation: May cause respiratory tract irritation.
Chronic: Adverse reproductive effects have been reported in animals.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.
Extinguishing Media: Cool containers with flooding quantities of water until well after fire is out. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Flash Point: > 112 deg C (> 233.60 deg F)
Autoignition Temperature: > 150 deg C (> 302.00 deg F)
Explosion Limits, Lower:N/A
Upper: N/A
NFPA Rating: (estimated) Health: ; Flammability: ; Instability:

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash hands before eating. Use only in a well-ventilated area. Avoid contact with skin and eyes. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.
Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tri-n-butyltin chloride	0.1 mg/m3 TWA (as Sn) (listed under Tin organic compounds).0.2 mg/m3 STEL (as Sn) (listed under Tin organic compounds).Skin - potential significant contribution to overall exposure by the cutaneous r oute (listed under Tin organic compounds).	0.1 mg/m3 TWA (as Sn, except Cyhexatin) (listed under Tin organic compounds).25 mg/m3 IDLH (as Sn except Cyhexatin) (listed under Tin organic compounds).	0.1 mg/m3 TWA (as Sn) (listed under Tin organic compounds).

OSHA Vacated PELs: Tri-n-butyltin chloride: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate gloves to prevent skin exposure.
Clothing: Wear appropriate clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear, colorless
Odor: stench
pH: Not available.
Vapor Pressure: Not available.
Vapor Density: 11.2
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 171 - 173 deg C @ 25.00mm Hg
Freezing/Melting Point:-9 deg C
Decomposition Temperature: Not available.
Solubility: practically insoluble in water
Specific Gravity/Density:1.2000g/cm3
Molecular Formula:C12H27ClSn
Molecular Weight:325.48

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid: Incompatible materials, ignition sources, excess heat.
Incompatibilities with Other Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Hydrogen chloride, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, tin/tin oxides.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 1461-22-9: WH6820000
LD50/LC50:
CAS# 1461-22-9:
Draize test, rabbit, eye: 50 ug/24H Severe;
Oral, mouse: LD50 = 60 mg/kg;
Oral, rabbit: LD50 = 30 ug/kg;
Oral, rat: LD50 = 129 mg/kg;
.

Carcinogenicity:
CAS# 1461-22-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.
Reproductive Effects: See RTECS for more information.
Mutagenicity: No information available.
Neurotoxicity: No information available.
Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	ORGANOTIN COMPOUNDS, LIQUID, N.O.S.	ORGANOTIN COMPOUND LIQUID NOS (TRI-N-BUTYLTIN CHLORIDE)
Hazard Class:	6.1	6.1
UN Number:	UN2788	UN2788
Packing Group:	III	III

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 1461-22-9 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
Section 313 No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 1461-22-9 can be found on the following state right to know lists: Minnesota, (listed as Tin organic compounds).

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols:
T
Risk Phrases:
R 25 Toxic if swallowed.
R 36/38 Irritating to eyes and skin.
R 48/23/25 Toxic : danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

Safety Phrases:
S 35 This material and its container must be disposed of in a safe w ay.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face pr

otection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)
CAS# 1461-22-9: 3

Canada - DSL/NDSL
CAS# 1461-22-9 is listed on Canada's DSL List.

Canada - WHMIS
This product has a WHMIS classification of D1B, D2A.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List
CAS# 1461-22-9 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 8/19/1998
Revision #3 Date: 4/27/2004