

Material Safety Data Sheet

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Version 1.2

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

1 - Product and Company Information

Product Name TRIPHENYLTIN CHLORIDE, 95%
Product Number 245712

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2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
FENTIN CHLORIDE	639-58-7	211-358-4	050-011-00-X

Formula C₁₈H₁₅ClSn

Molecular Weight 385.46 AMU

Synonyms Aquatin * Aquatin 20 EC * Brestanol *
 Chlorotriphenylstannane * Chlorotriphenyltin *
 Fentin chloride * GC 8993 * General chemicals
 8993 * HOE 2872 * LS 4442 * Phenostat-C * TPTC *
 Tinmate * Triphenylchlorostannane *
 Triphenylchlorotin * Triphenyltin chloride

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Toxic by inhalation, in contact with skin and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

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

AFTER EYE CONTACT

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.

AFTER INGESTION

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

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide. Dry chemical powder.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES 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

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.

SPECIAL REQUIREMENTS: Hygroscopic.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

EXPOSURE LIMITS - DENMARK

Source	Type	Value
OEL	TWA	0.1 mg/m ³

Remarks: SKIN

EXPOSURE LIMITS - UNITED KINGDOM

Source	Type	Value
OEL	TWA	0.1MG(SN)/M3
OEL	STEL	0.2 mg(Sn)/m ³

Remarks: Skin

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Solid Color: Faintly beige	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	240 °C	13.5 mmHg
MP/MP Range	103 °C	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions to Avoid: Hygroscopic.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, Tin/tin oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: WH6860000

ACUTE TOXICITY

LD50

Oral

Rat

118 - 238 mg/kg

LD50

Skin
Rabbit
> 1,000 mg/kg

LD50
Oral
Rat
135 mg/kg

LD50
Oral
Mouse
18 mg/kg

LD50
Intraperitoneal
Mouse
21500 UG/KG

LD50
Intravenous
Mouse
18 MG/KG

LD50
Oral
Chicken
210 mg/kg

IRRITATION DATA

Skin
Rabbit
100 mg
24H
Remarks: Severe irritation effect

Eyes
Rabbit
100 mg
24H
Remarks: Severe irritation effect

SIGNS AND SYMPTOMS OF EXPOSURE

Exposure can cause: Muscle cramps/spasms. Narcotic effect.
Respiratory depression.

ROUTE OF EXPOSURE

Skin Contact: Causes severe skin irritation.
Skin Absorption: Toxic if absorbed through skin. Readily absorbed through skin.
Eye Contact: Causes severe eye irritation.
Inhalation: Toxic if inhaled. High concentrations are extremely destructive to the tissue of themucous membranes and upper respiratory tract.
Ingestion: Toxic if swallowed.

TARGET ORGAN INFORMATION

Central nervous system.

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.

CHRONIC EXPOSURE - MUTAGEN

Human
30 NMOL/L
Cell Type: lymphocyte
SLN

Hamster
60 UG/L
Cell Type: ovary
Other mutation test systems

CHRONIC EXPOSURE - TERATOGEN

Species: Rat
Dose: 50 MG/KG
Route of Application: Oral
Exposure Time: (6-18D PREG)
Result: Effects on Embryo or Fetus: Other effects to embryo.

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 380 MG/KG
Route of Application: Oral
Exposure Time: (19D MALE)
Result: Paternal Effects: Testes, epididymis, sperm duct.
Paternal Effects: Prostate, seminal vessicle, Cowper's gland, accessory glands.

Species: Rat
Dose: 18900 UG/KG
Route of Application: Oral
Exposure Time: (7-9D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

12 - Ecological Information

ECOTOXICOLOGICAL EFFECTS

Test Type: LC50 Fish
Time: 48 h
Value: 0.1 mg/l

Test Type: EC50 Daphnia
Species: Daphnia magna
Value: 0.1 mg/l

13 - Disposal Considerations

SUBSTANCE DISPOSAL

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. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

UN#: 3146
Class: 6.1
PG: III
Proper Shipping Name: Organotin compound, solid, n.o.s.

IMDG

UN#: 3146
Class: 6.1
PG: III
Proper Shipping Name: ORGANOTIN COMPOUND, SOLID, N.O.S.
Marine Pollutant: No
Severe Marine Pollutant: Yes
Technical Name: Required

IATA

UN#: 3146
Class: 6.1
PG: III
Proper Shipping Name: Organotin compound, solid, n.o.s.
Inhalation Packing Group I: No
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 050-011-00-X

NOTA: A

INDICATION OF DANGER: T N

Toxic. Dangerous for the environment.

R-PHRASES: 23/24/25 50/53

Toxic by inhalation, in contact with skin and if swallowed.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-PHRASES: 26 27 28 45 60 61

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of soap-suds. 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.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 3

SWITZERLAND

SWISS POISON CLASS: 3

16 - Other Information

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.,

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