

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 15 May 2025

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Tri-n-pentyltin chloride

1.1. Catalog No.:

689967

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

Acute toxicity (oral), Category 3
H301
Skin corrosion/irritation, Category 2
H315
Serious eye damage/eye irritation, Category 2
H319
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

2.2.1. Pictogram



2.2.2.

Signal word (CLP):

Danger

Hazard statements (CLP):

H301 - Toxic if swallowed. H315 - Causes skin irritation. H319 - Causes serious eye irritation.

Precautionary statements (CLP):

P280 - Wear protective gloves/protective clothing/eye protection/face protection. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P301+P310 - IF SWALLOWED: Immediately call a doctor. P302+P352 - IF ON SKIN: Wash with plenty of water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

No additional information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance type: Multi-constituent

Name: TRI-n-PENTYLCHLOROTIN, tech-95

Name Product identifier % Classification according to Regulation (EC) No. 1272/2008 [CLP]

Triptyltin chloride
(CAS-No.) 3342-67-4
90 - 100

Acute Tox. 3 (Oral), H301
Skin Irrit. 2, H315
Eye Irrit. 2, H319

Other Organotins

0 - 10

Not classified

3.1.1. Formula

C₁₅H₃₃ClSn

3.1.2. Molecular Weight (g/mol)

367.59

3.1.3. CAS-No.

3342-67-4

4. FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general:

Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation:

Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact:

Wash with plenty of water/.... Get medical advice/attention.

First-aid measures after eye contact:

Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion:

Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation:

May cause irritation to the respiratory tract. Overexposure may cause: Cough. Headache. Nausea.

Symptoms/effects after skin contact:

Causes skin irritation. Organotins may be absorbed through the skin.

Symptoms/effects after eye contact:

Causes serious eye irritation.

Symptoms/effects after ingestion:

Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physician: Application of corticosteroid creams has been effective in treating severe skin irritation. If blisters develop, they may require abrasion to promote healing.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media:

None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard:

Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters

Firefighting instructions:

Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment:

Wear protective equipment as described in Section 8.

Emergency procedures:

Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment:

Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up:

Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling:

Avoid all eye and skin contact and do not breathe vapour and mist. Use only in well ventilated areas.

Hygiene measures:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:

Keep container tightly closed. Keep out of reach of children.

Incompatible materials:

Bases. Direct sunlight. Reducing agents. Moisture. Water :

Storage area:

Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Other Organotin

Italy - Portugal - USA ACGIH

ACGIH TWA (mg/m³)

0.1 mg/m³ as tin

USA OSHA

OSHA PEL (TWA) (mg/m³)

0.1 mg/m³ as tin

Triphenyltin chloride (3342-67-4)

Italy - Portugal - USA ACGIH

ACGIH TWA (mg/m³)

0.1 mg/m³ as tin

USA OSHA

OSHA PEL (TWA) (mg/m³)

0.1 mg/m³ as tin

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:

Liquid

Appearance:

Colorless liquid.

Molecular mass:

367.57 g/mol

Colour:

Pale yellow.

Odour:

characteristic.

Odour threshold:

No data available

Refractive index:

1.486

pH:

No data available

Relative evaporation rate (butylacetate=1):

No data available

Melting point:

No data available

Freezing point:

< 0 °C

Boiling point:

120 °C @ 0.25 mm Hg

Flash point:

> 120 °C (TCC)

Auto-ignition temperature:

No data available

Decomposition temperature:

No data available

Flammability (solid, gas):

No data available

Vapour pressure:

25 mm Hg @ 170°C

Relative vapour density at 20 °C:

No data available

Relative density:

1.137

Solubility:

Insoluble in water.

Log Pow:

No data available

Log Kow:

No data available

Viscosity, kinematic:

4 cSt

Viscosity, dynamic:

No data available

Explosive properties:

No data available

Oxidising properties:

No data available

Explosive limits:

No data available

9.2. Other information

No additional information available

10. STABILITY AND REACTIVITY

- 10.1. Reactivity
No additional information available
- 10.2. Chemical stability
Stable.
- 10.3. Possibility of hazardous reactions
Direct sunlight causes slow degradation to an inorganic tin salt.
- 10.4. Conditions to avoid
Heat. Open flame. Sparks.
- 10.5. Incompatible materials
Bases. Direct sunlight. Reducing agents. Moisture. Water :
- 10.6. Hazardous decomposition products
Organic acid vapors. Tin oxides.

11. TOXICOLOGICAL INFORMATION

- 11.1. Information on toxicological effects
Acute toxicity:
Toxic if swallowed.
Triphenyltin chloride (3342-67-4)
LD50 oral rat
> 150 mg/kg
ATE CLP (oral)
100 mg/kg bodyweight
Skin corrosion/irritation:
Causes skin irritation.
Serious eye damage/irritation:
Causes serious eye irritation.
Respiratory or skin sensitisation:
Not classified
Germ cell mutagenicity:
Not classified
Carcinogenicity:
Not classified
Reproductive toxicity:
Not classified
STOT-single exposure:
Not classified
STOT-repeated exposure:
Not classified
Aspiration hazard:
Not classified
Symptoms/effects after inhalation:
May cause irritation to the respiratory tract. Overexposure may cause: Cough. Headache. Nausea.
Symptoms/effects after skin contact:
Causes skin irritation. Organotins may be absorbed through the skin.
Symptoms/effects after eye contact:
Causes serious eye irritation.
Symptoms/effects after ingestion:
Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Reason for classification:
Expert judgment

12. ECOLOGICAL INFORMATION

- 12.1. Toxicity
Ecology - general:
This material is acutely toxic to aquatic life if released to open waters. This material is toxic to wildlife and fish.
Acute aquatic toxicity:
Not classified

Chronic aquatic toxicity:

Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product/Packaging disposal recommendations:

Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.

Ecology - waste materials:

Avoid release to the environment.

14. TRANSPORT INFORMATION

14.1. UN number

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR):

2788

UN-No. (IMDG):

2788

UN-No. (IATA):

2788

UN-No. (ADN):

2788

UN-No. (RID):

2788

14.2. UN proper shipping name

Proper Shipping Name (ADR):

ORGANOTIN COMPOUND, LIQUID, N.O.S.

Proper Shipping Name (IMDG):

ORGANOTIN COMPOUND, LIQUID, N.O.S.

Proper Shipping Name (IATA):

Organotin compound, liquid, n.o.s.

Proper Shipping Name (ADN):

ORGANOTIN COMPOUND, LIQUID, N.O.S.

Proper Shipping Name (RID):

ORGANOTIN COMPOUND, LIQUID, N.O.S.

Transport document description (ADR):

UN 2788 ORGANOTIN COMPOUND, LIQUID, N.O.S. (TRI-n-PENTYLCHLOROTIN), 6.1, II, (D/E)

Transport document description (IMDG):

UN 2788 ORGANOTIN COMPOUND, LIQUID, N.O.S. (TRI-n-PENTYLCHLOROTIN), 6.1, II, MARINE POLLUTANT

Transport document description (IATA):

UN 2788 Organotin compound, liquid, n.o.s. (TRI-n-PENTYLCHLOROTIN), 6.1, II

Transport document description (ADN):

UN 2788 ORGANOTIN COMPOUND, LIQUID, N.O.S. (TRI-n-PENTYLCHLOROTIN), 6.1, II

Transport document description (RID):

UN 2788 ORGANOTIN COMPOUND, LIQUID, N.O.S. (TRI-n-PENTYLCHLOROTIN), 6.1, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR):
6.1
Danger labels (ADR):
6.1
IMDG
Transport hazard class(es) (IMDG):
6.1
Danger labels (IMDG):
6.1 IATA
Transport hazard class(es) (IATA):
6.1
Hazard labels (IATA):
6.1
ADN
Transport hazard class(es) (ADN):
6.1
Danger labels (ADN):
6.1
RID
Transport hazard class(es) (RID):
6.1
Danger labels (RID):
6.1
14.4. Packing group
Packing group (ADR):
II
Packing group (IMDG):
II
Packing group (IATA):
II
Packing group (ADN):
II
Packing group (RID):
II
14.5. Environmental hazards
Dangerous for the environment:
No
Marine pollutant:
Yes (IMDG only)
Other information:
No supplementary information available
14.6. Special precautions for user
- Overland transport
Classification code (ADR):
T3
Special provisions (ADR):
43, 274
Limited quantities (ADR):
100ml
Excepted quantities (ADR):
E4
Packing instructions (ADR):
P001, IBC02
Mixed packing provisions (ADR):
MP15
Portable tank and bulk container instructions (ADR):
T11
Portable tank and bulk container special provisions (ADR):
TP2, TP27
Tank code (ADR):
L4BH
Tank special provisions (ADR):
TU15, TE19
Vehicle for tank carriage:
AT
Transport category (ADR):
2
Special provisions for carriage - Loading, unloading and handling (ADR):
CV13, CV28
Special provisions for carriage - Operation (ADR):
S9, S19
Hazard identification number (Kemler No.):
60
Tunnel restriction code (ADR):
D/E
EAC code:
2X
APP code:
B
- Transport by sea
Special provisions (IMDG):

43, 274
Limited quantities (IMDG):
100 ml
Excepted quantities (IMDG):
E4
Packing instructions (IMDG):
P001
IBC packing instructions (IMDG):
IBC02
Tank instructions (IMDG):
T11
Tank special provisions (IMDG):
TP2, TP13, TP27
EmS-No. (Fire):
F-A
EmS-No. (Spillage):
S-A
Stowage category (IMDG):
A
Stowage and handling (IMDG):
SW2
Properties and observations (IMDG):
A wide variety of toxic liquids. Toxic if swallowed, by skin contact or by inhalation.
- Air transport
PCA Excepted quantities (IATA):
E4
PCA Limited quantities (IATA):
Y641
PCA limited quantity max net quantity (IATA):
1L
PCA packing instructions (IATA):
654
PCA max net quantity (IATA):
5L
CAO packing instructions (IATA):
661
CAO max net quantity (IATA):
60L
Special provisions (IATA):
A3, A4, A6
ERG code (IATA):
6L
- Inland waterway transport
Classification code (ADN):
T3
Special provisions (ADN):
43, 274, 802
Limited quantities (ADN):
100 ml
Excepted quantities (ADN):
E4
Equipment required (ADN):
PP, EP, TOX, A
Ventilation (ADN):
VE02
Number of blue cones/lights (ADN):
2
- Rail transport
Classification code (RID):
T3
Special provisions (RID):
43, 274
Limited quantities (RID):
100ml
Excepted quantities (RID):
E4
Packing instructions (RID):
P001, IBC02
Mixed packing provisions (RID):
MP15
Portable tank and bulk container instructions (RID):
T11
Portable tank and bulk container special provisions (RID):
TP2, TP27
Tank codes for RID tanks (RID):
L4BH
Special provisions for RID tanks (RID):
TU15
Transport category (RID):
2
Special provisions for carriage - Loading, unloading and handling (RID):

CW13, CW28, CW31

Colis express (express parcels) (RID):

CE5

Hazard identification number (RID):

60

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

TRI-n-PENTYLCHLOROTIN, tech-95 is not on the REACH Candidate List

TRI-n-PENTYLCHLOROTIN, tech-95 is not on the REACH Annex XIV List

TRI-n-PENTYLCHLOROTIN, tech-95 is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

TRI-n-PENTYLCHLOROTIN, tech-95 is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV:

Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen:

The substance is not listed

SZW-lijst van mutagene stoffen:

The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding:

The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid:

The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling:

The substance is not listed

Denmark

Danish National Regulations:

Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

16. OTHER INFORMATION

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. For lab use only!