

SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-O-33585
Product Name	Fentin
CAS No.	668-34-8
Category	Fine Chemicals
Synonyms	Triphenylstannylium; Fentin; Triphenyltin; Triphenyltin(1+)
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email sales@clearsynth.com for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Not available

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H301	Not available
H311	Not available
H331	Not available
H400	Not available

H410	Not available
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Precautionary Statement(s)

Code	Statement
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P262	Not available
P264	Wash hands thoroughly after handling.
P270	Not available
P271	Use only outdoors or in a well-ventilated area.
P273	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P316	Not available
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P316	Not available
P321	Specific treatment (see ... on this label).
P330	Not available
P361+P364	Not available
P391	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Fentin

CAS Number : 668-34-8

Molecular Formula : C₁₈H₁₅Sn

Molecular Weight : 35.2

Parent Chemical : Not available

Synonyms : Triphenylstannylum; Fentin; Triphenyltin; Triphenyltin(1+)

Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures

General advice: Seek medical attention if symptoms occur or persist. Show this Safety Data Sheet to the physician in attendance.

Inhalation: Move person to fresh air. Keep at rest. If breathing is difficult, seek medical attention.

Skin contact: Remove contaminated clothing and shoes. Wash skin with plenty of water and soap. Seek medical attention if irritation or symptoms develop.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Not available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No data available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures appropriate to surrounding fire (e.g., water spray, alcohol-resistant foam, dry chemical, carbon dioxide).

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Not available.

Specific hazards: Not available.

5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective gear. Cool containers with water spray if exposed to fire. Avoid inhalation of combustion products.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/vapors. Avoid contact with skin and eyes. Use appropriate personal protective equipment. Ensure adequate ventilation.

6.2 Environmental precautions

Avoid release to the environment. Prevent entry into drains, surface water, or soil. Notify authorities if required.

6.3 Methods and material for containment and cleaning up

Contain spill. Collect using non-sparking tools and place in a suitable, labeled container for disposal. Avoid generating dust. Clean spill area after material pickup.

6.4 Reference to other sections

See Section 8 for personal protective equipment and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Avoid breathing dust/fume/vapors. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Store in a tightly closed container in a cool, dry, well-ventilated place. Protect from moisture. Keep away from incompatible materials.

Incompatible materials: Not available.

7.3 Specific end use(s)

Fine chemical / laboratory use. No data available.

SECTION 8: Exposure controls / personal protection

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8.1 Control parameters

Occupational exposure limits: Not available.

Biological limit values: Not available.

8.2 Exposure controls

Engineering controls: Provide adequate ventilation. Use local exhaust where dusts/vapors may be generated.

Personal protective equipment (PPE):

- Eye/face protection: Safety glasses with side shields or chemical splash goggles.
- Skin protection: Protective gloves (material not available). Wear protective clothing.
- Respiratory protection: If ventilation is inadequate or exposure is possible, use an appropriate NIOSH/EN-approved respirator (type not available).
- Hygiene measures: Wash hands after handling. Remove contaminated clothing and wash before reuse.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available

Test	Result
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

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10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions. No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat, open flames, and sources of ignition. Incompatible materials. Other conditions: Not available.

10.5 Incompatible materials

Not available.

10.6 Hazardous decomposition products

Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: LD50: 46 mg/kg (Oral, Rat) (T14) LC50: 60.3 mg/m³ over 4 hours (Inhalation, Rat) (T58)
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: Inorganic or organic tin compounds placed on the skin or in the eyes can produce skin and eye irritation. (L308) Inorganic or organic tin compounds placed on the skin or in the eyes can produce skin and eye irritation. (L308)
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: Organotin compounds produce neurotoxic and immunotoxic effects. Organotins may directly activate glial cells contributing to neuronal cell degeneration by local release of pro-inflammatory cytokines, tumor necrosis factor- α , and/or interleukins. They may also induce apoptosis by direct action on neuronal cells. Organotin compounds stimulate the neuronal release of and/or decrease of neuronal cell uptake of neurotransmitters in brain tissue, including aspartate, GABA, glutamate, norepinephrine, and serotonin. This may be either a contributing factor to or result of the neuronal cell loss. The immunotoxic effects of organotins are characterized by thymic atrophy caused by the suppression of proliferation of immature thymocytes and apoptosis of mature thymocytes. Organotin compounds are believed to exert these effects by suppressing DNA and protein synthesis, inducing the expression of genes involved in apoptosis (such as *nur77*), and disrupting the regulation of intracellular calcium levels, giving rise to the uncontrolled production of reactive oxygen species, release of cytochrome c to the cytosol, and the proteolytic and nucleolytic cascade of apoptosis. The suppression of proliferation of immature thymocytes further results in the suppression of T-cell-mediated immune responses. Organotins are also endocrine disruptors and are believed to contribute to obesity by inappropriate receptor activation, leading to adipocyte differentiation. Inorganic tin triggers eryptosis, contributing to tin-induced anemia. (L308, A182, A184) Organotin compounds produce neurotoxic and immunotoxic effects. Organotins may directly activate glial cells contributing to neuronal cell degeneration by local release of pro-inflammatory cytokines, tumor necrosis factor- α , and/or interleukins. They may also induce apoptosis by direct action on neuronal cells. Organotin compounds stimulate the neuronal release of and/or decrease of neuronal cell uptake of neurotransmitters in brain tissue, including aspartate, GABA, glutamate, norepinephrine, and serotonin. This may be either a contributing factor to or result of the neuronal cell loss. The immunotoxic effects of organotins are characterized by thymic atrophy caused by the suppression of proliferation of immature thymocytes and apoptosis of mature thymocytes. Organotin compounds are believed to exert these effects by suppressing DNA and protein synthesis, inducing the expression of genes involved in apoptosis (such as *nur77*), and disrupting the regulation of intracellular calcium levels, giving rise to the uncontrolled production of reactive oxygen species, release of cytochrome c to the cytosol, and the proteolytic and nucleolytic cascade of apoptosis. The suppression of proliferation of immature thymocytes further results in the suppression of T-cell-mediated immune responses. Organotins are also endocrine disruptors and are believed to contribute to obesity by inappropriate receptor activation, leading to adipocyte differentiation. Inorganic tin triggers eryptosis, contributing to tin-induced anemia. (L308, A182, A184)

- Reproductive toxicity: Breathing or swallowing, or skin contact with organotins, can interfere with the way the brain and nervous system work, causing death in severe cases. Organic tin compounds may also damage the immune and reproductive system. (L307, L308) Breathing or swallowing, or skin contact with organotins, can interfere with the way the brain and nervous system work, causing death in severe cases. Organic tin compounds may also damage the immune and reproductive system. (L307, L308)
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure

- Breathing or swallowing, or skin contact with organotins, can interfere with the way the brain and nervous system work, causing death in severe cases. Organic tin compounds may also damage the immune and reproductive system. (L307, L308)

Symptoms related to the physical, chemical and toxicological characteristics

- Organotin compounds produce neurotoxic and immunotoxic effects. Organotins may directly activate glial cells contributing to neuronal cell degeneration by local release of pro-inflammatory cytokines, tumor necrosis factor- α , and/or interleukins. They may also induce apoptosis by direct action on neuronal cells. Organotin compounds stimulate the neuronal release of and/or decrease of neuronal cell uptake of neurotransmitters in brain tissue, including aspartate, GABA, glutamate, norepinephrine, and serotonin. This may be either a contributing factor to or result of the neuronal cell loss. The immunotoxic effects of organotins are characterized by thymic atrophy caused by the suppression of proliferation of immature thymocytes and apoptosis of mature thymocytes. Organotin compounds are believed to exert these effects by suppressing DNA and protein synthesis, inducing the expression of genes involved in apoptosis (such as *nur77*), and disrupting the regulation of intracellular calcium levels, giving rise to the uncontrolled production of reactive oxygen species, release of cytochrome c to the cytosol, and the proteolytic and nucleolytic cascade of apoptosis. The suppression of proliferation of immature thymocytes further results in the suppression of T-cell-mediated immune responses. Organotins are also endocrine disruptors and are believed to contribute to obesity by inappropriate receptor activation, leading to adipocyte differentiation. Inorganic tin triggers eryptosis, contributing to tin-induced anemia. (L308, A182, A184)

SECTION 12: Ecological information

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12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Not available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations. Do not discharge to drains or the environment.

Waste classification: Not available.

Contaminated packaging: Dispose of as unused product or according to local regulations.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number

Not available.

14.2 UN proper shipping name

Not available.

14.3 Transport hazard class(es)

Not available.

14.4 Packing group

Not available.

14.5 Environmental hazards

Not available.

14.6 Special precautions for user

Not available.

14.7 Transport in bulk according to IMO instruments

Not available.

SECTION 15: Regulatory information

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

Not available.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

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Catalog no.: CS-O-33585

CAS no.: 668-34-8

Synonyms: Triphenylstannylium; Fentin; Triphenyltin; Triphenyltin(1+)

Supplier: Clearsynth Labs Ltd., Mumbai, India

Emergency phone: +91-22-245045900

Revision date: Not available.

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