

Chemical Safety Data Sheet MSDS / SDS

Fluorotributyltin

Revision Date:2026-05-31 Revision Number:1

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

Product identifier

Product name : Fluorotributyltin
CBnumber : CB1705050
CAS : 1983-10-4
EINECS Number : 217-847-9
Synonyms : Tributyltin Fluoride,Fluorotributyltin

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.
Uses advised against : none

Company Identification

Company : Chemicalbook
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone : 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word

Danger

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P405 Store locked up.

P273 Avoid release to the environment.

P314 Get medical advice/attention if you feel unwell.

P337+P313 IF eye irritation persists: Get medical advice/attention.

P391 Collect spillage. Hazardous to the aquatic environment

Hazard statements

- H301 Toxic if swallowed
- H312 Harmful in contact with skin
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H372 Causes damage to organs through prolonged or repeated exposure
- H410 Very toxic to aquatic life with long lasting effects
- H400 Very toxic to aquatic life

SECTION 3: Composition/information on ingredients

Substance

| | |
|--------------|---|
| Product name | : Fluorotributyltin |
| Synonyms | : Tributyltin Fluoride, Fluorotributyltin |
| CAS | : 1983-10-4 |
| EC number | : 217-847-9 |
| MF | : C ₁₂ H ₂₇ F ₃ Sn |
| MW | : 309.05 |

SECTION 4: First aid measures

First Aid Measures

General advice

Immediate medical attention is required. If symptoms persist, call a physician.

| CAS No | Inhalation LC50 | | | | | |
|------------------------------------|-----------------|------------------|-------------------------------------|--|-----------------------------|---------|
| Immediate m | | | | | | |
| Immediately | | | | | | |
| continue flus | | | | | | |
| immediately. | | | | | | |
| Skin Contact | Immediate | medical atte | ntion is required. Wash off immedia | tely with soap and pl | enty of | |
| | water while | removing al | l contaminated cloth | es and shoes. Wash contaminated clothing | | |
| | before reus | e. Wash off | immediately with ple | nty of water. If | skin irritation persists, | call a |
| | physician. | | | | | |
| Inhalation | Immediate | medical atte | ntion is required Re | move to fresh air | If not breathing, give arti | |
| | respiration | Avoid direct | contact with skin. U | se barrier to give | mouth-to-mouth resuscita | |
| | Move to fre | sh air in cas | e of accidental inhal | ation of vapors | If symptoms persist, call a | |
| | physician | | | | | |
| Ingestion | Do NOT in | duce vomitin | g. Call a physician o | r poison contro | l center immediately. Never | |
| | anything by | mouth to a | n unconscious person. Drink plenty | of water. Clean mout | h with | |
| | and drink a | fterwards plenty | of water. Call a | physician. | | |
| Self-protection of the first aider | Use person | al protective | equipment as requi | red. Avoid cont | act with skin, eyes or | clothin |

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately. If symptoms persist, call a physician.

Skin Contact

Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

Inhalation

Immediate medical attention is required. Remove to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician.

Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms

No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

SECTION 5: Firefighting measures

Suitable Extinguishing Media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None.

Specific hazards arising from the chemical

Specific hazards arising from the chemical

No information available.

Hazardous combustion products

Hydrogen fluoride. Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact

No information available.

Sensitivity to Static Discharge

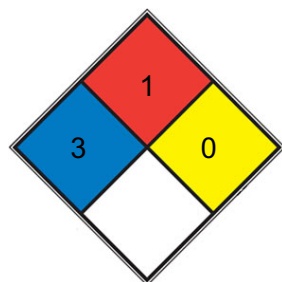
No information available.

Protective equipment and precautions for firefighters

Protective equipment and precautions for firefighters

As in any fire, wear self contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA 704



HEALTH 3 Short exposure could cause serious temporary or moderate residual injury (e.g. [liquid hydrogen](#), [sulfuric acid](#), [calcium hypochlorite](#), hexafluorosilicic acid)

FIRE 1 Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. [mineral oil](#), ammonia)

REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, [N₂](#))

SPEC.
 HAZ.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional

Ecological Information.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray.

Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Store at room temperature.

Incompatible materials

None known based on information supplied.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Guidelines

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Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-----------------------------------|---|--|--|
| Tri-n-butyltin fluoride 1983-10-4 | STEL: 0.2 mg/m ³ Sn TWA: 0.1 mg/m ³ Sn S* | TWA: 0.1 mg/m ³ Sn (vacated) TWA: 0.1 mg/m ³ Sn (vacated) S* | IDLH: 25 mg/m ³ Sn TWA: 0.1 mg/m ³ except Cyhexatin Sn |

NIOSH IDLH Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Controls

Showers

Eyewash stations

Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles. Face protection shield.

Skin and Body Protection

Wear protective gloves and protective clothing.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance

with current local regulations.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

| | |
|------------------------------|---|
| Physical State | Solid |
| Appearance | No information available |
| Odor | No information available |
| pH | No information available |
| Melting point/freezing point | 248 °C |
| Boiling point | 285°C (rough estimate) |
| Flash point | >150°C |
| Density | 1,28 g/cm ³ |
| Evaporation rate | No information available |
| Upper flammability limits | No information available |
| Lower flammability limit | No information available |
| Vapor pressure | No information available |
| Vapor density | No information available |
| Specific gravity | No information available |
| Water solubility | Soluble in nonpolar organic solvents. Insoluble in water. |
| Solubility in other solvents | No information available |
| Partition coefficient | No information available |
| Autoignition temperature | No information available |
| Decomposition temperature | No information available |
| Kinematic viscosity | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |

SECTION 10: Stability and reactivity

Reactivity

Not applicable

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

No information available.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents.

Hazardous Decomposition Products

Hydrogen fluoride. Carbon oxides.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation

Classified based on available data. For more details, see section 2.

Eye contact

Classified based on available data. For more details, see section 2.

Skin Contact

Classified based on available data. For more details, see section 2.

Ingestion

Classified based on available data. For more details, see section 2.

Information on toxicological effects

Symptoms

Classified based on available data. For more details, see section 2.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity

Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects. Target Organ Effects Blood, Central nervous system, Eyes, Respiratory system, Kidney, Liver, Skin, Urinary Tract.

Numerical measures of toxicity - Product Information

Unknown acute toxicity

Classified based on available data. For more details, see section 2

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

100 mg/kg

ATEmix (dermal)

1100 mg/kg

ATEmix (inhalation-dust/mist)

0 mg/l

ATEmix (inhalation-vapor)0.4 mg/l

SECTION 12: Ecological information**Ecotoxicity**

May cause long lasting harmful effects to aquatic life

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

SECTION 13: Disposal considerations**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

Other Information

Waste codes should be assigned by the user based on the application for which the product was used.

California Hazardous Waste Status

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|-----------------------------------|-----------------------------------|
| Tri-n-butyltin fluoride 1983-10-4 | Toxic |

SECTION 14: Transport information**DOT****UN/ID no**

UN3146

Hazard Class

6.1

Packing Group

III

Proper shipping name

Organotin compounds, solid, n.o.s.

Description

UN3146, Organotin compounds, solid, n.o.s., 6.1, III, Marine pollutant Marine pollutant This product contains a chemical which is listed as a severe marine pollutant according to DOT

Emergency Response Guide Number

153

IMDG

UN/ID no

UN3146

Hazard Class

6.1 Subsidiary hazard class P

Packing Group

III

Proper shipping name

Organotin compound, solid, n.o.s.

Description

UN3146, Organotin compound, solid, n.o.s. (Tri-n-butyltin fluoride), 6.1 (P), III, Marine pollutant

Special Provisions

43, 223, 274

EmS-No

F-A, S-A Marine pollutant This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

IATA

UN/ID no

UN3146

Hazard Class

6.1

Packing Group

III

Proper shipping name

Organotin compound, solid, n.o.s.

Description

UN3146, Organotin compound, solid, n.o.s. (Tri-n-butyltin fluoride), 6.1, III

SECTION 15: Regulatory information

International Inventories

All of the components in the product are on the following Inventory lists

Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) South Korea (KECL): ENCS (Japan): Philippines (PICCS)

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

| Chemical name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|-------------------------|------|-----|------|--------|--------|------|-------|------|-------|------|
| Tri-n-butyltin fluoride | - | X | - | X | - | X | - | X | X | X |

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard

Yes

Chronic Health Hazard

Yes

Fire hazard

No

Sudden release of pressure hazard

No

Reactive hazard

No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|-----------------------------------|------------|---------------|--------------|
| Tri-n-butyltin fluoride 1983-10-4 | X | Not Listed | Not Listed |

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.