

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Revision date** 01-Apr-2022  
 Revision Number 5.04

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	Triphenyltin(IV) Acetate Standard
<b>Product Code</b>	204-13331

<b>Manufacturer</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-5964
<b>Supplier</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses and restrictions on use</b>	For research use only

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

Classification of the substance or mixture

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 1
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 1, Category 3
Category 1 central nervous system, liver	
Category 3 Respiratory irritation	
Specific target organ toxicity (repeated exposure)	Category 1
Category 1 immune system	

## Pictograms



Signal word

Danger

## Hazard statements

- H318 - Causes serious eye damage
- H301 - Toxic if swallowed
- H311 - Toxic in contact with skin
- H330 - Fatal if inhaled
- H361 - Suspected of damaging fertility or the unborn child
- H335 - May cause respiratory irritation
- H317 - May cause an allergic skin reaction
- H370 - Causes damage to the following organs: central nervous system, liver

H372 - Causes damage to the following organs through prolonged or repeated exposure: immune system

**Precautionary statements-(Prevention)**

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Contaminated work clothing should not be allowed out of the workplace
- Wear protective gloves
- Do not breathe dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area

**Precautionary statements-(Response)**

- IF exposed: Call a POISON CENTER or doctor/physician
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician
- IF ON SKIN: Wash with plenty of soap and water
- Call a POISON CENTER or doctor/physician if you feel unwell
- Remove/Take off immediately all contaminated clothing
- Wash contaminated clothing before reuse
- If skin irritation or rash occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Rinse mouth

**Precautionary statements-(Storage)**

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Substance

**Formula** C<sub>20</sub>H<sub>18</sub>O<sub>2</sub>Sn

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Triphenyltin(IV) Acetate	97.0	409.07	(3)-2597	1-(2)-71	900-95-8
Benzene	0.40	78.11	(3)-1	*	71-43-2

**Note on ISHL No.:** \* in the table means announced chemical substances.

**Impurities and/or Additives:** Benzene, <0.5%

### Section 4: FIRST AID MEASURES

**Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

## Section 5: FIRE FIGHTING MEASURES

### Suitable extinguishing media

Water spray (fog), Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder, Sand

### Unsuitable extinguishing media

No information available

### Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

### Special extinguishing method

No information available

### Special protective actions for fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

### Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

### Methods and materials for contaminant and methods and materials for cleaning up

Sweep up and gather scattered particles, and collect it in an empty airtight container.

### Recovery, neutralization

No information available

### Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

### Handling

#### Technical measures

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

#### Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle In places other than those specified, should not be smoking or eating and drinking Should not be brought contaminated protective equipment and gloves to rest stops Deny unnecessary entry of non-emergency personnel to the handling area

#### Safety handling precautions

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

#### Storage

##### Safe storage conditions

##### Storage conditions

Keep container protect from light tightly closed. Store in a cool (2-10 °C) place. Packed with an inert gas. Store locked up.

##### Safe packaging material

Glass

##### Incompatible substances

Strong oxidizing agents

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand-

and eye-wash facility. And display their position clearly.

**Exposure limits**

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Triphenyltin(IV) Acetate 900-95-8	N/A	N/A	STEL: 0.2 mg/m <sup>3</sup> Sn TWA: 0.1 mg/m <sup>3</sup> Sn Skin
Benzene 71-43-2	Skin ISHL/ACL: 1 ppm	ISHL/ACL: 1 ppm	STEL: 2.5 ppm TWA: 0.5 ppm Skin

**Personal protective equipment**

<b>Respiratory protection</b>	Dust mask
<b>Hand protection</b>	Impermeable protective gloves
<b>Eye protection</b>	protective eyeglasses or chemical safety goggles
<b>Skin and body protection</b>	Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Form**

<b>Color</b>	white
<b>Appearance</b>	crystalline powder - powder
<b>Odor</b>	no data available
<b>Melting point/freezing point</b>	120 - 126 °C
<b>Boiling point, initial boiling point and boiling range</b>	no data available
<b>Flammability</b>	no data available
<b>Evaporation rate:</b>	no data available
<b>Flammability (solid, gas):</b>	no data available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper:</b>	no data available
<b>Lower:</b>	no data available
<b>Flash point</b>	no data available
<b>Auto-ignition temperature:</b>	no data available
<b>Decomposition temperature:</b>	no data available
<b>pH</b>	no data available
<b>Viscosity (coefficient of viscosity)</b>	no data available
<b>Dynamic viscosity</b>	no data available
<b>Solubilities</b>	pyridine : soluble . Ethanol : sparingly soluble . acetone , water : practically insoluble, or insoluble .
<b>n-Octanol/water partition coefficient:(log Pow)</b>	no data available
<b>Vapour pressure</b>	no data available
<b>Specific Gravity / Relative density</b>	no data available
<b>Vapour density</b>	no data available
<b>Particle characteristics</b>	no data available

## Section 10: STABILITY AND REACTIVITY

**Stability**

<b>Reactivity</b>	no data available
<b>Chemical stability</b>	May be altered by light.
<b>Hazardous reactions</b>	None under normal processing
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight
<b>Incompatible materials</b>	Strong oxidizing agents
<b>Hazardous decomposition products</b>	

Carbon monooxide (CO), Carbon dioxide (CO<sub>2</sub>), Metal oxides

### Section 11: TOXICOLOGICAL INFORMATION

Residual hazardous components were also described here.

**Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Triphenyltin(IV) Acetate	140 mg/kg ( Rat )	450 mg/kg ( Rat )	0.044 mg/L ( Rat, male ) 4 h
Benzene	810 mg/kg ( rat )	>8,200 mg/kg ( rabbit )	14000 ppm (rat)

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust-source information	Acute toxicity -inhalation mist-source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

**Skin irritation/corrosion**

Chemical Name	Skin corrosion/irritation source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage/irritation source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory or Skin sensitization source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	germ cell mutagenicity source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Benzene 71-43-2	Known	Group 1	A1	Group 1

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.

**Section 12: ECOLOGICAL INFORMATION**

Residual hazardous components were also described here.

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Benzene	<i>EC50 : Pseudokirchneriella subcapitata</i> 29 mg/L 72 h	<i>LC50 : Oncorhynchus mykiss</i> 5.3 mg/L 96 h <i>EC50 : Fathead mino</i> 0.8 mg/L 32 h	<i>EC50 : Daphnia magna</i> 8.76 - 15.6 mg/L 48 h

**Other data**

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
Triphenyltin(IV) Acetate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

<b>Persistence and degradability</b>	No information available
<b>Bioaccumulative potential</b>	No information available
<b>Mobility in soil</b>	No information available
<b>Hazard to the ozone layer</b>	No information available
<b>Mobility</b>	

**Section 13: DISPOSAL CONSIDERATIONS****Waste from residues**

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

**Contaminated container and contaminated packaging**

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

**Section 14: TRANSPORT INFORMATION****ADR/RID**

<b>UN number</b>	UN3146
<b>Proper shipping name:</b>	Organotin compound, solid, n.o.s. (Triphenyltin(IV) Acetate)
<b>UN classification</b>	6.1
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	I
<b>Marine pollutant</b>	Yes

**IMDG**

<b>UN number</b>	UN3146
<b>Proper shipping name:</b>	Organotin compound, solid, n.o.s. (Triphenyltin(IV) Acetate)
<b>UN classification</b>	6.1
<b>Subsidiary hazard class</b>	P
<b>Packing group</b>	I
<b>Marine pollutant (Sea)</b>	Yes
<b>Transport in bulk according to Annex II of MARPOL 73/78 and</b>	No information available

the IBC Code  
**IATA**  
**UN number** UN3146  
**Proper shipping name:** Organotin compound, solid, n.o.s. (Triphenyltin(IV) Acetate)  
**UN classification** 6.1  
**Subsidiary hazard class**  
**Packing group** I  
**Environmentally Hazardous Substance** Yes

## Section 15: REGULATORY INFORMATION

### International Inventories

**EINECS/ELINCS** Listed  
**TSCA** Listed

### Japanese regulations

**Fire Service Act** Not applicable  
**Poisonous and Deleterious Substances Control Law** Deleterious Substances 3rd. Grade  
**Industrial Safety and Health Act** Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18)  
 Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.322,531  
**Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc** Class II Specified Chemical Substances (Law Art.2, Para.3, Enforcement Order Art.1-2)  
 Priority Assessment Chemical Substances (Law Article 2, Para.5)  
**Regulations for the carriage and storage of dangerous goods in ship** Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)  
**Civil Aeronautics Law** Toxic and Infectious Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)  
**Marine Pollution Prevention Law** Marine pollutants (P and PP substances)  
**Pollutant Release and Transfer Register Law (~2023.3.31)** Specified Class 1 No. Class 1  
**Specified Class 1-No. Class 1 - No.** 400  
 239  
**Pollutant Release and Transfer Register Law (2023/4/1~)** Specified Class 1 No. Class 1  
**Specified Class 1-No. Class 1 - No.** 400  
 664  
**Export Trade Control Order** Not applicable  
**Air Pollution Control Law** Hazardous Air Pollutants  
**Soil Contamination Control Law** Designated Hazardous Substances

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2) (~2024.3.31)	Pollutant Release and Transfer Register Law (~2023.3.31)
Triphenyltin(IV) Acetate 900-95-8 ( 97.0 )	Applicable	Applicable	Applicable
Benzene 71-43-2 ( 0.40 )	-	Applicable	Applicable

## Section 16: OTHER INFORMATION

**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
IATA dangerous Goods Regulations  
RTECS:Registry of Toxic Effects of Chemical Substances  
Japan Industrial Safety and Health Association GHS Model SDS  
Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
etc

**Disclaimer**

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z7252(2019). \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**