

### SECTION 1: Identification

#### 1.1. Identification

Product form	: Substance
Trade name	: Dibutyltin dilaurate
Chemical name	:
CAS-No.	: 77-58-7
Product code	: 01862
Formula	: C32H64O4Sn

#### 1.2. Recommended use and restrictions on use

Recommended use	: Use as laboratory reagent, Manufacture of substances
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#### 1.3. Supplier

##### Supplier

Polysciences  
400 Valley Road  
Warrington, PA 18976 - United States  
T +1 215 343 6484 - F +1 215 343 0214  
[info@polysciences.com](mailto:info@polysciences.com) - [www.polysciences.com](http://www.polysciences.com)

#### 1.4. Emergency telephone number

Emergency number	: 24-hour emergency phone number ChemTel 1-800-255-3924
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### SECTION 2: Hazard(s) identification


#### 2.1. Classification of the substance or mixture

##### GHS US classification

Acute toxicity (oral) Category 4	Harmful if swallowed
Acute toxicity (inhalation) Category 4	Harmful if inhaled
Skin corrosion/irritation Category 1C	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Serious eye damage/eye irritation Category 2B	Causes eye irritation
Germ cell mutagenicity Category 2	Suspected of causing genetic defects
Reproductive toxicity Category 1B	May damage fertility or the unborn child
Specific target organ toxicity (repeated exposure) Category 1	Causes damage to organs through prolonged or repeated exposure
Hazardous to the aquatic environment – Acute Hazard Category 1	Very toxic to aquatic life
Hazardous to the aquatic environment – Chronic Hazard Category 1	Very toxic to aquatic life with long lasting effects

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US)	: 
Signal word (GHS US)	: Danger
Hazard statements (GHS US)	: Harmful if swallowed or if inhaled Causes severe skin burns and eye damage Causes serious eye damage Causes eye irritation Suspected of causing genetic defects May damage fertility or the unborn child Causes damage to organs through prolonged or repeated exposure Very toxic to aquatic life Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS US)	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/spray.

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Wash hands, forearms and face thoroughly after handling.  
Do not eat, drink or smoke when using this product.

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Name	Product identifier	%	GHS US classification
Dibutyltin dilaurate (Main constituent)	(CAS-No.) 77-58-7	≤ 100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1C, H314 Eye Dam. 1, H318 Eye Irrit. 2B, H320 Muta. 2, H341 Repr. 1B, H360 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Rinse mouth. Call a physician immediately. Do not induce vomiting.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Burns.
- Symptoms/effects after eye contact : Serious damage to eyes. Mild eye irritation.
- Symptoms/effects after ingestion : Burns.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Specific hazards arising from the chemical

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.

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### 6.1.2. For emergency responders

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

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.  
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store at room temp. Store locked up. Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Dibutyltin dilaurate (77-58-7)

No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. [In case of inadequate ventilation] wear respiratory protection.

#### Personal protective equipment symbol(s):



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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: viscous pale yellow liquid.
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: no data
Freezing point	: No data available
Boiling point	: no data
Flash point	: 235 °F F
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 0.2 mm Hg @ 160 deg. c.
Relative vapor density at 20°C	: no data
Relative density	: No data available
Molecular mass	: 631.5
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Harmful if inhaled.

#### Dibutyltin dilaurate (77-58-7)

LD50 oral rat	175 µg/kg mg/Kg
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Dibutyltin dilaurate (77-58-7)	
LD50 dermal rat	> ≥ 2000 mg/kg > 2000 mg/kg
ATE US (oral)	0.175 mg/kg body weight
ATE US (dermal)	2000 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage. Causes eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Suspected of causing genetic defects.
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes. Mild eye irritation.
Symptoms/effects after ingestion	: Burns.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. Very toxic to aquatic life with long lasting effects.

### 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. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Transport document description	: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III
UN-No.(DOT)	: UN3082
Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s.
Class (DOT)	: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT)	: III - Minor Danger

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Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the environment : Yes

Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) : 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.  
 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.  
 173 - An appropriate generic entry may be used for this material.  
 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s.," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging.  
 IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).  
 T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)  
 TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.  
 TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No limit

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Emergency Response Guide (ERG) Number : 171

Other information : No supplementary information available.

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

UN-No. (IMDG) : 3082

Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Class (IMDG) : 9 - Miscellaneous dangerous substances and articles

Packing group (IMDG) : III - substances presenting low danger

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Limited quantities (IMDG) : 5 L  
Marine pollutant : Yes



### Air transport

Transport document description (IATA) : UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III  
UN-No. (IATA) : 3082  
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.  
Class (IATA) : 9 - Miscellaneous Dangerous Substances and Articles  
Packing group (IATA) : III - Low danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Dibutyltin dilaurate (77-58-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### CANADA

#### Dibutyltin dilaurate (77-58-7)

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

#### National regulations

No additional information available

### 15.3. US State regulations

## SECTION 16: Other information

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#### Hazard Rating

Health : 4 Severe Hazard - Life-threatening, major or permanent damage may result from single or repeated overexposures  
Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)  
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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