

SIGMA-ALDRICH**Material Safety Data Sheet**Version 3.0
Revision Date 08/23/2008
Print Date 07/24/2010**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Dibutyltin maleate

Product Number : 440477
Brand : Aldrich

Company : Sigma-Aldrich
3050 Spruce Street
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USA

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C₁₂H₂₀O₄Sn
Molecular Weight : 346.99 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Dibutyltin maleate			
78-04-6	201-077-5	-	-

3. HAZARDS IDENTIFICATION**Emergency Overview****OSHA Hazards**

Target Organ Effect, Highly toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Irritant

Target Organs

Nerves.

HMIS Classification

Health Hazard: 3
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0

NFPA Rating

Health Hazard: 3
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be fatal if inhaled. Causes respiratory tract irritation.
Skin Toxic if absorbed through skin. Causes skin irritation. May be fatal if absorbed

Eyes
Ingestion

through skin.
Causes eye irritation.
Toxic if swallowed.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point no data available

Ignition temperature no data available

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control	Update	Basis
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			parameters		
Dibutyltin maleate	78-04-6	TWA	0.1 mg/m3	1993-06-30	US. Department of Labor - Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL) 29 CFR 1910.1000 Air Contaminants.
		TWA	0.1 mg/m3	1989-03-01	US. Department of Labor - Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1000 Z-1-A
Remarks	Skin contact does contribute to exposure.				
		TWA	0.1 mg/m3	1996-05-18	US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004:Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)
	Skin contact does contribute to exposure. The agent (mixture , or exposure circumstance) is not classifiable as to its carcinogenicity to humans . Refers to Appendix A -- Carcinogens. 1996 Adoption				
		STEL	0.2 mg/m3	1994-09-01	US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004:Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)
	Skin contact does contribute to exposure. The agent (mixture , or exposure circumstance) is not classifiable as to its carcinogenicity to humans .				

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form solid

Safety data

pH no data available
Melting point 135 - 140 °C (275 - 284 °F)
Boiling point no data available
Flash point no data available
Ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Water solubility no data available

10. STABILITY AND REACTIVITY**Storage stability**

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Tin/tin oxides

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

no data available

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Developmental Toxicity - rat - Oral

Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

Signs and Symptoms of Exposure

Nausea, Headache, Vomiting, Dizziness, Irregular breathing., Unconsciousness, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Potential Health Effects

Inhalation	May be fatal if inhaled. Causes respiratory tract irritation.
Skin	Toxic if absorbed through skin. Causes skin irritation. May be fatal if absorbed through skin.
Eyes	Causes eye irritation.
Ingestion	Toxic if swallowed.
Target Organs	Nerves.,

Additional Information

RTECS: JH4735000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

Toxicity to fish LC50 - *Oryzias latipes* - 13.12 mg/l - 48 h

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 3146 Class: 6.1 Packing group: II

Proper shipping name: Organotin compounds, solid, n.o.s.

Marine pollutant: Severe marine pollutant

Poison Inhalation Hazard: No

IMDG

UN-Number: 3146 Class: 6.1 Packing group: II EMS-No: F-A, S-A
 Proper shipping name: ORGANOTIN COMPOUND, SOLID, N.O.S. (Dibutyltin maleate)
 Marine pollutant: Severe marine pollutant

IATA

UN-Number: 3146 Class: 6.1 Packing group: II
 Proper shipping name: Organotin compound, solid n.o.s. (Dibutyltin maleate)

15. REGULATORY INFORMATION**OSHA Hazards**

Target Organ Effect, Highly toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Irritant

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Dibutyltin maleate	78-04-6	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Dibutyltin maleate	78-04-6	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION**Further information**

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