

# Manta CAT-DOTDL

Low-Toxicity Organotin Catalyst & Lubricant (Dioctyltin Dilaurate)

## Description

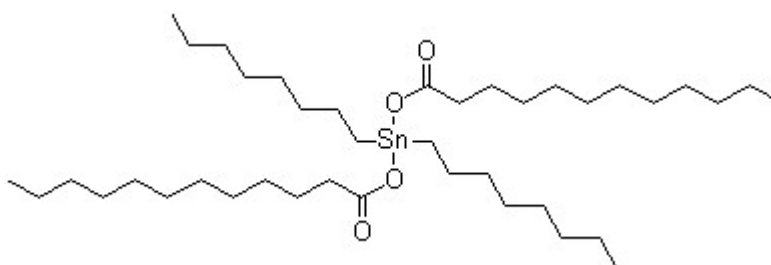
Manta CAT-DOTDL (Dioctyltin Dilaurate) is a low-toxicity organotin additive. Characterized by its superior lubrication, weather resistance, and high transparency, it is the preferred solution for applications with stringent safety and environmental requirements.

In PVC processing, it offers the best self-lubricating properties among organotins and prevents sulfur staining. In the silicone and polyurethane industries, it acts as a high-purity catalyst for medical-grade and food-contact materials where standard butyltins are restricted.

Performance equivalent to industry standards such as TIB KAT 216 and FASCAT 4208.

## Typical Physical Properties

Manta Code:	CAT-DOTDL
Chemical Name:	Dioctyltin dilaurate
CAS NO.	3648-18-8
EC NO.	222-883-3
Formula	C <sub>40</sub> H <sub>80</sub> O <sub>4</sub> Sn
Molecular Weight:	743.77
Appearance:	Light yellow transparent oily liquid
Tin Content (%):	15.0-16.0
Density(p25°C, g/cm <sup>3</sup> )	1.010-1.030
Refractive Index (n <sub>25/D</sub> )	1.470 – 1.474
Moisture Content (%)	≤ 1.0%
Molecular Structure	



## Features

- Low Toxicity Profile: Suitable for food-contact and medical-grade applications according to global industrial safety guidelines.
- Superior Lubricity: Provides exceptional internal and external lubrication, reducing friction during polymer processing and improving surface finish.
- Non-Sulfur Polluting: Resistant to sulfur staining (vulcanization pollution), ensuring the long-term color stability of the end product.

- **High Transparency:** Maintains crystal clarity in flexible and rigid PVC without exudation or plate-out.
- **Synergistic Performance:** Exhibits excellent synergy when used in combination with mercaptide tins or Ba/Zn stabilizers to boost overall stability.

### Applications

#### 1. Medical-Grade Silicone Rubber

Used as a high-purity catalyst for room-temperature vulcanized (RTV) silicone rubbers, specifically for medical tubing, masks, and sensitive healthcare components where low-leachable tin is required.

#### 2. Food & Pharmaceutical PVC Packaging

Functions as a primary low-toxicity stabilizer and lubricant for flexible PVC films, sheets, and hoses used in the packaging of food, water, and medicines.

#### 3. Rigid Transparent Packaging

Acts as a high-efficiency lubricant in rigid transparent food containers. Recommended dosage is typically below 1.5 phr to maintain optimal clarity and processing throughput.

#### 4. Polyurethane (PU) Coatings & Elastomers

Serves as an environmentally-responsible catalyst for PU systems, offering a more sustainable alternative to DBTDL in high-end consumer goods and indoor applications.

#### 5. Weather-Resistant Films

Enhances the outdoor durability and UV stability of PVC products, preventing yellowing and maintaining mechanical integrity under fluctuating environmental conditions.

### Packaging

In 25kg pail, 200kg drum.

### Safety and Storage

**Storage:** Store in a cool, dry, and well-ventilated warehouse. Keep the container hermetically sealed after use to minimize contact with air and moisture.

**Safety:** Avoid contact with skin and eyes. In case of accidental contamination, rinse immediately with large amounts of water and seek medical advice if necessary.

**Shelf Life:** 12 months from the date of production in original, unopened containers.

### Contact Information

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