



TIB KAT 248

Description

TIB KAT 248 (Dibutyltin Oxide) is a solid amorphous dibutyl organotin catalyst. Commonly referred to as DBTO or Dibutyloxotin, *TIB KAT 248* is characterized by a high tin content (~ 48%) and oxide ligand which imparts both high reactivity and high-temperature stability.

TIB KAT 248 is mainly used in esterification-, transesterification- and polycondensation-reactions. *TIB KAT 248* is particularly well suitable for the transesterification of vinyl acetate or acrylic acid copolymers. Furthermore, the catalyst can be applied in the production of polycarbonates.

TIB KAT 248 can be used at temperatures of approx. 90-260° Low temperature reactions, as e.g. the conversion of e.g. polyester or alkyd resin production.

For the application as ingredient of electrodeposition paint (E-coat), *TIB KAT 248* is available in different particle-size distributions, such as *TIB KAT 248 LC* having more controlled particle size and lower chlorides.

TIB KAT 248 is supplied as a solid but can be supplied as a stable liquid with suitable diluents such as plasticizers and silanes. Related liquid-grade versions of Dibutyltin Oxide include *TIB KAT 436*, which includes a plasticizer and a relatively high tin content, *TIB KAT 421*, which contains a plasticizer and lower tin content, *TIB KAT 435*, which also contains a plasticizer but has a lower overall tin volume, *TIB KAT 437*, which contains a silane complex, and *TIB KAT 438*, which is another variant of our DBTO and silane compound. These liquid versions are used as catalysts for silicone condensation reactions.

Depending on the application *TIB KAT 248* is used in concentrations between 0.01 and 0.5%

Product Data

| | |
|------------------|---------------------------|
| Chemical name | Dibutyltin oxide (DBTO) |
| CAS No. | 818-08-6 |
| Molecular weight | 248.9 g/mol |
| Appearance | off-white granular powder |

Specification

| | |
|----------------------|----------|
| Total tin content | ≥ 47.0 % |
| Content of volatiles | ≤ 0.5 % |
| Chloride content | ≤ 0.2 % |
| Iron content | ≤ 10 ppm |

Storage

TIB KAT 248 can be stored for at least one year if kept closed in the original packaging. The container should be closed tightly after each use to maximize shelf life.

Packaging

25 kg fibre drum,

other packaging size upon request.

Packaging USA

55 lb (25 kg) pails,

other packaging size upon request.



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Special advice for Security

Information concerning

- ◻ classification and labelling according to the regulations governing transport and hazardous chemicals
- ◻ protective measures for storage and handling
- ◻ safety measures in case of accident and fire
- ◻ toxicity and ecological effects

is given in our material safety data sheet.

Customs Tariff No.: 2931 9080



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Product Carbon Footprint (PCF)

Created by: KlimAktiv Consulting GmbH

| PCF-results (emissions) | Value (Mannheim) | Value (Pittsburgh) | Unit |
|---|------------------|--------------------|--------------------------|
| Sum of PCFs (Cradle-to-gate) | 20,0 | - | kg CO ₂ eq/kg |
| PCF excluding biogenic emissions | 20,0 | - | kg CO ₂ eq/kg |
| Biogenic emissions | - | - | kg CO ₂ eq/kg |

The Product Carbon Footprint (PCF) covers one of several environmental impacts of chemical products. The PCF does not allow comprehensive conclusions about the overall environmental performance of the product. Comparisons of PCFs from different data sources are only possible to a limited extent. The PCF presented here applies to the product sold by TIB Chemicals.

The PCF is based on data of the accounting year 2024 and follows the calculation method outlined in ISO 14067, the Tfs Guideline, the BASF Guideline, the cradle-to-gate system boundaries, the declared unit kg CO₂e/kg product (excl. packaging) and the sum of different emissions from Scope 1, 2 and 3 (raw material and preliminary products (e.g. secondary data), transportation of purchased products and inbound logistics, as well as company- and site-specific processes including primary energy consumption, electricity and heat consumption). The emissions from biogenic carbon and land-use changes are considered as far as data sources are available.