



TIB KAT 256

Description

TIB KAT 256 (Monobutyltin oxide or MBTO) is a solid catalyst, which is used in esterification-, transesterification- and polycondensation reactions. *TIB KAT 256* is a monobutyltin-based organotin that is lower in toxicity compared to dibutyl-based organotins.

TIB KAT 256 gives good results in the production of polyesters and alkyds.

Like most organotins used in esterification, the key attributes of *TIB KAT 256* are its high-temperature stability, low color as supplied, good reactivity evidenced by low acid number endpoints, and minimal reactivity-derived color effects on the final product. Compared to titanium catalysts, *TIB KAT 256* has improved hydrolytic stability, which is especially important during the initial stages of the esterification reaction. *TIB KAT 256* is a highly reactive given its high tin content (56%) and related small ligand.

TIB KAT 256 is produced according to highest purity standards in order to minimize content of toxicologically more concerning dibutyl and tributyltin species.

The catalyst is used in concentrations between 0.01 - 0.5 wt.-%. *TIB KAT 256* can be used between 90 - 280°C.

Product Data

Chemical name	Monobutyltin oxide (MBTO)
Molecular weight	208.8 g/mol
CAS No.	2273-43-0
Appearance	white powder
Decomposition point	> 210 °C
Solubility	practically insoluble in water and organic solvents

Specification

Tin content	≥ 55.0 %
Content of volatiles	≤ 1.5 %
Chloride content	approx. 1 %



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Storage

TIB KAT 256 can be stored 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

Packaging size upon request.

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 9000



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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)	22,3	-	kg CO ₂ eq/kg
PCF excluding biogenic emissions	22,3	-	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.