



TIB KAT 218

Description

TIB KAT 218 (Dibutyltin Dilaurate), commonly abbreviated to DBTL or DBTDL, is one of the most commonly used specialty metal-based catalysts for polyurethanes and silicone condensation reactions. With a long history of usage in a wide range of formulations, dibutyltin laurate is a good benchmark tin catalyst when starting development work on new formulations.

TIB KAT 218 can be used as homogeneous catalyst:

- for Polyurethane systems as can & coil coatings, car refinishing, architectural coatings, 1- and 2-comp. – adhesives & sealants, Elastomers
- for silicones & silane crosslinking, especially for 1- and 2-component RTV silicones
- for esterification and transesterification reactions between 80 – 240°C, at concentrations between 0.01 – 1 wt.-%
- for crosslinking of silane modified polyolefines (XPE)
- for select lubricant formulations

Reactivity-wise, *TIB KAT 218* provides a balanced reactivity profile, front-end to back-end. In regard to polyurethanes, a good balanced cure is achievable given the presence of both a low tin metal content and large ligand. Thus, a balanced front-end/pot-life and back-end/final cure reactivity profile can be achieved in, as an example, 2K polyurethane coatings. *TIB KAT 218* is a carboxylate specialty metal-

based catalyst built with a biobased ligand, and thus, color formation is possible, especially when heat is added or generated.

TIB KAT 218 is miscible with organic solvents, but sensitive to moisture. *TIB KAT 218* is available in special formulations upon request.

Product Data

Chemical name	Dibutyltin laurate (DBTL)
Cas No.	77-58-7
Molecular weight	631.56 g/mol
State of aggregation	Liquid

Specification

Tin content	≥ 17.5 %
Colour (Gardner)	≤ 5
Density (20°C)	1.03 – 1.06 g/cm ³



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Storage

TIB KAT 218 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. Characteristic of most Sn (IV) organotin, the primary cause of instability would be hydrolysis. Hydrolysis results in the formation of tin oxide insolubles leading to deactivation.

Packaging

25 kg pail, 50 kg pail, 200 kg drum, 220 kg drum, 1000 kg IBC, other packaging size upon request.

Packaging US

485 lb (220 Kg) steel drum,
44 lb (20 kg) plastic pail,
other 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)	12,3	-	kg CO ₂ eq/kg
PCF excluding biogenic emissions	12,3	-	kg CO ₂ eq/kg
Biogenic emissions	7,93 E-03	-	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.