TIBCHEMICALS

TIB KAT 318

Description

TIB KAT 318 (Dioctyltin Dineodecanoate) is a versatile octyl-based organotin homogeneous catalyst. The presence of the neodecanoate ligand and the percentage of active tin metal make Dioctyltin Dineodecanoate a suitable candidate across a broad formulation spectrum. The combination of octyl chains and neodecanoate ligands also makes *TIB KAT 318* one of the least concerning organotin catalysts on the market. It is suitable to replace the toxicologically more concerning dibutyltin-based catalyst such as *TIB KAT 218* (DBTL).

TIB KAT 318 can be used:

- for the condensation of silicones& silane modified polymers, especially for the production of RTV silicone resins. The catalyst is used at levels up to 1 wt.-%.
- for esterification and transesterification reactions between 80 – 240°C, at concentrations between 0.01 – 0.3 wt.-%
- for the catalysis of the reaction between isocyanates and alcohols especially for coatings. The product improves pot life and can be used in 1p - and 2p - PU formulations.)

TIB KAT 318 is miscible with organic solvents, but sensitive to moisture. *TIB KAT 318* is available in special formulations upon request.

Product Data

Chemical name	Dioctyltin Dineodecanaote
Cas No.	68299-15-0
Molecular weight	687.68 g/mol
State of aggregation	Liquid

Specification

Tin content	16.5 – 17.8 %
Color (Gardner)	≤ 5
Density (20°C)	1.030 – 1.045 g/cm^3
Refractive index (20°C)	1.4650-1.4750 nD

Storage

TIB KAT 318 can be stored for at least one year if kept form freezing and closed in the original packaging. The container should be closed tightly after each use to maximize shelf life. Characteristic of most Sn (IV) organotins, the primary cause of instability would be hydrolysis. Hydrolysis results in the formation of tin oxide insolubles leading to deactivation.

Packaging

50 Kg and 200 kg plastic drum,

other packaging size upon request.

TIB Chemicals AG | P. O. Box 810220 | 68202 Mannheim | Germany | Phone +49 621 8901-811 | kat@tib-chemicals.com I www.tib-chemicals.com
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Packaging US

44 lb (20 kg) plastic pail and 440 lb (200 Kg) plastic drum,

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 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)	10,7	-	kg CO_2eq/kg
PCF excluding biogenic emissions	10,7	-	kg CO_2eq/kg
Biogenic emissions	7,93E-03	-	kg CO_2eq/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.

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