TIBCHEMICALS

TIB KAT 437

Description

TIB KAT 437 (Dibutyltin Oxide + Silane) is a liquid version of dibutyltin oxide (DBTO) which contains a silane. *TIB KAT 437* contains 50% of the active tin content compared to the solid version of DBTO, *TIB KAT 248.*

TIB KAT 437 can be used as a homogenous tin catalyst in a wide spectrum of silicone applications including adhesives & sealants and coatings. Silicone-based applications include: acetoxy-, ethoxy- and oxime-based Room Temperature Vulcanizing (RTV) adhesives and sealants, polyethylene crosslinked silanes (PEX), and select silane-modified polymers (SMPs).

Given its high tin content, liquid form, small ligand, and good compatibility with a wide range of raw materials, *TIB KAT 437* tends to be a highly reactive catalyst across a broad range of silicone formulations. In regard to silicone reactions, *TIB KAT 437*, like all tin-based catalysts, will catalyze the silanol/silane condensation reaction thus acting as both a polymerization and crosslinking catalyst. *TIB KAT 437* is hydrolytically stable within typical formulation moisture levels, but this stability will break down with increasing moisture content.

Product Data

Chemical name	Dibutyltin oxide (DBTO) + silane complex
CAS No.	818-08-6
Molecular weight	248.9 g/mol
Aggregation state	liquid

Specification

Total tin content	22.0 - 23.5 %
Gardner color	≤ 3
Density (20°C)	1.0 – 1.2 g/mL

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Storage

TIB KAT 437 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. Given the presence of a silane, hydrolytic instability could occur resulting in reduced catalytic performance.

Packaging

Packaging size upon request.

Packaging USA

20 kg (44 lb) pail

200 kg (440 lb) steel 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)	-	-	kg CO_2eq/kg
PCF excluding biogenic emissions	-	-	kg CO_2eq/kg
Biogenic emissions	-	-	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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