



TIB KAT 160

Description

TIB KAT 160 (Stannous Oxalate or Tin II Oxalate) is a high metal content inorganic tin catalyst that is used in a wide range of esterification reactions. Tin (II) Oxalate is an ideal alternative tin chemical for commonly used organotin catalysts such as *TIB KAT 248* and *TIB KAT 256*. As an inorganic tin, Stannous Oxalate has a lower toxicity profile compared to organotins in similar applications. *TIB KAT 160* is a tin catalyst supplied as a free-flowing white solid and low moisture content.

TIB KAT 160 is primarily used as a catalyst for synthesizing various monomeric and polymeric ester-based products such as nonionic surfactants, polyester polyols, and plasticizers. Typical end-use markets for *TIB KAT 160* include plastics, coatings, and personal care. Its inorganic tin nature makes it ideal for chemical applications demanding the use of low-toxicity raw materials.

TIB KAT 160 possesses a high level of catalytic activity which leads to almost complete conversions with short reaction times at higher reaction temperatures (> 160°C). *TIB KAT 160* enables the production of light colored esters. Secondary reactions do hardly occur in comparison to acidic catalysts.

TIB KAT 160 is not corrosive.

The quantities of *TIB KAT 160* generally used for esterification processes are between 0.01 and 0.2 per cent by weight.

Having finished the reaction, it is easy to remove *TIB KAT 160* by chemical treatment or adsorption with *TINEX*[®]-products.

Product Data

Chemical name	Stannous oxalate
Cas No.	814-94-8
Molecular weight	206.7 g/mol
State of aggregation	solid

Specification

Total tin content	≥ 57.0 %
Tin (II) content	≥ 56.5 %
Color (L)	≥ 90

Storage

TIB KAT 160 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 inorganic tin (Sn(II)), the primary cause of instability would be oxidation.

Packaging

25 kg plastic pail,

other packaging size upon request.

Packaging USA

55 lb (25 kg) plastic pail,

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.: 2917 1100



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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)	5,90	-	kg CO ₂ eq/kg
PCF excluding biogenic emissions	5,90	-	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.