



## Technical Data Sheet

**Product Name:** Polyurethane Organic Bismuth Catalyst BCAT-E20CX

### Product Brief:

BCAT-E20CX is an organic bismuth catalyst by fine controlled synthesis. It does not contain restricted heavy metals, polycyclic aromatic hydrocarbons, o-phenyl ester and VOC or solvents. It can be used as eco-friendly substitute for traditional organotin, mercury and lead catalysts. It can pass strict environmental regulations in the United States and the European Union.

### Typical Properties:

Appearance	Yellowish transparent liquid
Colour (Fe-Co)	≤ 4
Density (g/cm <sup>3</sup> , 25°C)	1.218
Viscosity (mPa.s, 25°C)	1720±500
Smell	With very faint smell

**Solubility:** Soluble in normal polyurethane raw materials (polyether polyol, plasticizer)

### Applications:

It is recommended to be used in TPU synthesis, waterborne polyurethane, solvent-free coating and other fields. It does not contain VOC and solvent and meets the environmental protection requirements for VOC and heavy metal restrictions..

### Features & Advantage:

BCAT-E20CX is an organic bismuth catalyst by fine controlled synthesis. It does not contain restricted heavy metals, polycyclic aromatic hydrocarbons, o-phenyl ester and VOC or solvents, In addition to the general organic bismuth catalytic properties, it has the following unique properties compared with ordinary organic bismuth catalysts:

- ❖ Compared with the general organic bismuth, it improves the hydrolysis stability and aging resistance when used in the synthesis of TPU. It usually replaces the common tin catalyst T9, so as to meets the new environmental requirements of tin free;
- ❖ For the synthesis of waterborne polyurethane, it has stronger selectivity for the NCO / OH reaction and reduces side reactions;
- ❖ For CPU and coating system, it has longer operation time and good fluidity than ordinary organic bismuth catalyst;

### User's Guide:

- If it is used in the field of polyurethane synthesis, it can be added at any stage of the synthesis process as needed.
- If it is used for polyurethane two-component composite, it is recommended to add it into dehydrated polyol (P material) component, and allowed to add it into isocyanate components, stir evenly.
- If it is used for coating, it is recommended to add it before on-site construction, which will have better effect than premixing.
- The general dosage is 0.02 ~ 0.8% of the weight of PU, and about 0.005% for TPU synthesis
- .Be sure to seal and store immediately after use.

### Handling & Storage:

Product should be stored in a cool, dry environment away from sunlight, excessive heat and rain.

**Package:** 25kg/200kg in HDPE drum

**Shelf Life:** The unopened shelf life is 24 months from the date of manufacture. After shelf life, please do test to make sure the catalytic properties before use.

All recommendation and technical information (whether verbal, written or by way of product evaluations), including any suggested formulations contained herein is provided for information purpose only and does not constitute a legal contract as well as suitable for relating to the third party rights. The conditions of your use and application of our products, technical assistance and information are beyond our control. Therefore, no guaranty or warranty for your evaluation is made. Consequently the user assumes all risks in connection with the use and handling of this product based on our technical information and recommendations, final determination of suitability of this product is the sole responsibility of the user.