



Technical Data Sheet

Product Name: Eco-friendly Tin Free Polyurethane Catalyst WCAT-WH03

Typical Properties:

Appearance	Amber to dark brown transparent liquid
Colour (Fe-Co)	≤10
Density (g/cm ³ , 25°C)	1.036
Viscosity (mPa.s, 25°C)	2-12
Odor	With special chemical compound odor

Solubility: Easily soluble in common polyurethane raw materials such as polyether, polyester etc.

Eco-friendly Characteristic:

It does not contain mercury, lead, tin and other heavy metals, polycyclic aromatic hydrocarbons, ortho benzene plasticizers and other restricted ingredients, and complies with the current environmental regulations on heavy metals. It is an environmentally friendly substitute for the elimination of organic mercury, lead, tin and other catalysts.

Application Field:

It is recommended to be used in aromatic one component moisture curing polyurethane, hot melt PUR, adhesives and other fields to replace tin catalysts such as T-12 and T-9 due to environmental restrictions.

Features & Advantage:

WCAT-WH03 contains no tin element and is an environmentally friendly and efficient catalyst substituting for organic tin (T12). It has the following characteristics:

- **Long pot life, effectively reducing bubbles and bulges.** Good material fluidity, easy to level and scrape film, reduce surface pinholes, bulges and wrinkles;
- **Good storage stability.** Longer storage life and low viscosity in one component moisture curable polyurethane.
- **The polyurethane used for wet curing has the characteristics of fast surface drying and fast body drying at low temperature in winter.** It still maintains good catalytic effect in low temperature (5 °C) test.
- **High environmental protection, no organic tin.** Which is in line with the general trend of increasingly stringent environmental control on organic tin at home and abroad.

User's Guide:

- If it is added into polyol (material P) component during use, it can be added at room temperature and stirred evenly. If it is added into isocyanate component, such as one component wet curing system, the time for adding is the late stage of prepolymerization of isocyanate and polyol. It is not recommended to pre-mix into polyol before prepolymerization reaction, so as to avoid gelation accident caused by violent reaction.
- The dosage is related to the formula, and the general dosage is 0.05~0.5% of the weight of polyol (material P). The dosage in wet curing system is 0.02-0.15%. It is suggested that the storage stability test must be carried out first due to the difference of the user's packaging equipment and process.
- This product has a certain water absorption, do not expose it to the air to prevent water absorption.
- It is normal that the color may darken during storage. After normal use, the tank mouth must be closed immediately.

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. If the catalytic activity does not decrease after the shelf life, it can still be used as qualified products.

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