



Technical Data Sheet

Product Name: Eco-friendly Anti-hydrolysis and Bubble-free PU Catalyst AUCAT-7015

Typical Properties:

Model	Appearance	Colour (Fe-Co)	Density g/cm ³ (25°C)	Viscosity mPa.s (25°C)	Odor
AUCAT-7015	yellowish clear liquid	<5	1.095 ± 0.02	1300 ± 300	With slight special odor of chemical compound

Solubility: Easily soluble in various small molecule alcohols.

Eco-friendly Characteristic: Not contain restricted heavy metal elements.

Features & Advantage:

AUCAT series catalysts are developed to solve the problem that common organometallic catalysts lose activity gradually in systems containing trace moisture, acid, alkali, etc, which cannot be stored stably for a long time. AUCAT-7015 specially enhanced catalytic performance in the oil polyol and polyester polyol system, and possessing non foaming properties similar to organic mercury, with the following characteristics:

- **Non bubbling:** Targeted catalytic properties that catalyze the reaction of - NCO and - OH, but do not catalyze the reaction of trace moisture with isocyanates, can avoid CO₂ bubbles generated by chemical reactions. This characteristic is the biggest feature different from ordinary bismuth / tin / amine catalysts, solving the problems of surface bubbles, bulges, pits, and peeling of elastomer products.
- **Hydrolysis resistance and good storage stability.** It can be premixed into the aqueous formulation system in advance, and the catalytic activity is stable and does not attenuate after long-term storage. Compared with ordinary organotin and bismuth catalysts, it has more durable hydrolysis resistance, solves the technical problem of hydrolysis failure of ordinary metal catalysts in aqueous formula, and makes the formula and process simpler, more stable and more flexible.
- **Have better compatibility in castor oil and other oil polyols/polyester polyol systems:** Used for polyester polyol systems with better catalytic performance than polyether polyols; And particularly valuable is that AUCAT-7015 does not promote the hydrolysis reaction of polyester.
- **High mechanical and physical properties of the end product:** AUCAT-7015 has clear targeted catalytic properties and does not catalyze other side reactions (urea formate, NCO self polymerization, etc.), ensuring better mechanical properties of polyurethane materials.
- **Eco-friendly:** Free from toxic metal elements such as mercury, lead, and tin, ensuring compliance with the stringent requirements of domestic and foreign environmental regulations.

Applications:

It is widely applicable in various fields of polyurethane, especially recommended for use in polyester polyol systems and various modified oil polyol systems represented by castor oil / soybean oil, including but not limited to:

- I. Used for electronic sealing glue made of castor oil / soybean oil and new energy battery PACK sealing sealant;
- II. Used for the synthesis of hydroxyl terminated polyester polyol resins in the paint and adhesive industry, as an environmentally friendly alternative to tin based catalysts;
- III. Polyester type TPU synthesis, environmentally friendly alternative to tin catalysts, with better hydrolysis resistance;

User's Guide:

- For two-component polyurethane, it can be pre mixed into polyol components. the general addition amount is 0.05-0.5% of the weight of polyol components.
- Normally, the packaging container must be kept sealed, and the can mouth should be sealed 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 18 months from the date of manufacture. After expiration, it can still be used as qualified product if the catalytic activity does not attenuate.

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