

Amine Catalysts for Polyurethane Foam

TOYOCAT-HX Series

1. Characteristics

- * TOYOCAT-HX series of tertiary amine catalyst systems are comprized of HX4W and HX35. The numbers indicate increasing reactivity to blowing reactions.
- * They are effective in reducing PVC discoloration for automotive semi-rigid polyurethane foam systems.
- * TOYOCAT-HX4W exhibits similar catalytic activity to Triethylamine in semi-rigid foam systems.
- * TOYOCAT-HX35, the strongest version of the HX series, provides exceptional flow and reactivity in semi-rigid systems.

 It exhibits extremely strong catalytic activation in the blowing segment of urethane polymerization.
- * TOYOCAT-HX35 is also non-migratory as well as odorless.
- * TOYOCAT-HX4W contain 10% of water, and TOYOCAT-HX35W contains 6.3% of water, so please take care of the water volume of the system.

2. Typical Properties

Appearance Specific Gravity D ₂₀ ²⁰	HX4W	HX35	HX35W
	Amber liquid	Amber liq	. Amber liq.
	0.99	0.96	0.96
Water Content (%) Solubility in Water	9.7-10.3	< 0.5	6.0-6.6
Freezing Point () Flash Point () [C.O.C]	< 5	< 15	< -10
	131	82	102
Viscosity (mPa s) Calculated OH number (mgKOH/g)	110	16	12
	336	313	313

3. Toxicity

Oral (rat) LD ₅₀ (mg/kg)	6050	2460	2489
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4. Handling and Storing

These products have low vapor pressure and toxicity, however handling in well ventilated area is recommended.

When these products come into direct contact with the eyes or skin, inflammation will occur. Wearing protective gear or applying protective cream is most effective when

handling. In the event that contact is made with the eyes or skin, wash immediately with large amount of water. If the eyes are affected, seek medical attention after washing. These products may turn slightly darker when stored over long periods of time. However, catalytic activity will not be affected.

5 Shipping information

Net weight

Packaging	kg	1b
Drum (200L)	190	418
(20L)	18	40

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