



Amine Catalysts for Polyurethane Foam

TOYOCAT-NCT & NCE & NCD

TOYOCAT-NC series of tertiary amine catalyst systems are chemically blocked delayed action catalyst system for production of polyurethane foams. They don't contain formic acid and exhibit very low corrosiveness.

1. Characteristics

TOYOCAT-NCT

- * TOYOCAT-NCT is based on TEDA and exhibits mild initial activity without losing its excellent overall catalytic properties. It can be used instead of TOYOCAT-TF.
- * When used in applications for complex large molds, TOYOCAT-NCT exhibits not only excellent foam flowability, but also fast curing functions.

TOYOCAT-NCE, NCD

- * TOYOCAT-NCE and NCD show strong blowing activity. They can be used instead of TOYOCAT-ETF.
- * When used in applications for complex large molds, TOYOCAT-NCE and NCD exhibit not only excellent foam flowability, but also fast curing functions.

2. Typical Properties

	NCT	NCE	NCD
Appearance	Yellowish liquid	Amber liquid	Amber liquid
Specific Gravity D_{20}^{20}	1.12	0.99	0.93
Water Content(%)	< 2.0	< 2.0	< 2.0
Solubility in Water			
Freezing Point ()	<-20	<-20	<-20
Flash Point ()(C.O.C)	124	81	83
Viscosity (mPa s)(at 20)	154	364	82
Calculated OH number (mgKOH)	1561	1595	1146

3. Toxicity

	NCT	NCE	NCD
Oral (rat) LD ₅₀ (mg/kg)	3443	1889	2325

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. This product may turn slightly darker when stored over long periods of time. However, catalytic activity will not be affected.

Shipping information

	Net weight		(lb)
Packaging	NCT	NCE	NCD
Drum(200L)	220kg(396)	190(418)	180(396)
(20L)	21 (37)	18 (40)	17 (37)

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