

# **Amine Catalysts for Polyurethane Foam**

# TOYOCAT-F2, F4

#### 1. Characteristics

- \* TOYOCAT-F2, F4 are all strong gelling catalysts, which improve foam curing speed.
- \* TOYOCAT-F2, F4 all provide wide processing ranges at a variety of water level as well as isocyanate index in all-MDI HR foam production.
- \* TOYOCAT-F2, F4 improve foam surface curing function while also reducing cell blistering in systems formulated with increased amounts of water.
- \* TOYOCAT-F2, F4 are also quite useful catalyst packages for flexible, hot, conventional HR and rigid foam production as well as elastomeric polyurethane products.

## 2. Typical Properties

	F2	F4
Appearance	Yellowish clear liquid	Yellowish clear liquid
Specific Gravity D <sub>20</sub> <sup>20</sup>	1.04	1.00
Water Content (%)	< 0.5	< 0.5
Solubility in Water		
Freezing Point ( )	< -5	< -7
Flash Point ( )	104(C.O.C.)	76(T.C.C.)
Viscosity (mPa s)	3	3
Calculated OH number (mgKOH/g)	111	0

# 3. Toxicity

Oral (rat) LD <sub>50</sub> (mg/kg)	1328	1090
	1020	1000

# 4. Handling and Storing

These products have a 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

F2	F4
200kg (440 1b	190 (418)
20 (44)	20 (44)

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