MANTA

Technical Data Sheet

Version: 1.0

Manta CAT-CTHMTS

Advanced Chelated Organotin Catalyst (SMP Grade)

Description

Manta CAT-CTHMTS is a chelated organotin catalyst specifically designed for Silane Modified Polymers (MS/STP) and RTV silicone systems. Developed using advanced coordination chemistry, it offers improved performance over standard organotin catalysts.
While its catalytic speed exceeds both Dibutyltin Dilaurate (DBTDL) and Dibutyltin Diacetate (DBTDA), Manta CAT-CTHMTS eliminates the pungent odor associated with acetate-based tins. It also provides excellent thermal stability, preventing "reversion" (softening) of the cured rubber even under high-temperature sealed conditions.

Typical Physical Properties

Manta Code:	CAT-CTHMTS
Chemical Name	Chelated Organotin Complex
Appearance	Yellowish Oily Liquid
Tin Content (%)	27.0% – 28.0%
Viscosity(30°C, mPa·s)	10 – 50
Density (30°C, g/cm³)	1.21-1.23
Melting Point:	15 – 30 °C

Features

- Ultra-Fast Curing: Significantly reduces tack-free time and deep-cure time compared to DBTDL.
- Low Odor Profile: Overcomes the strong, pungent acidic smell of tin diacetate, improving the manufacturing environment.
- Superior Anti-Reversion: Cured products remain stable and do not revert to a liquid state when heated in a sealed environment.
- Excellent Stability: Maintains consistent catalytic activity during long-term storage of the finished sealant.
- Tin-Efficient: High activity allows for lower dosage levels while maintaining rapid reaction kinetics.

Applications

1. SMP & STP Sealants (One-Component)
Suitable for SMP-based adhesives and sealants used in construction and automotive assembly. It provides the rapid "green strength" required for immediate handling and construction efficiency.
2. RTV-1 Silicone Sealants
Specifically suited for single-component room-temperature vulcanized (RTV) silicone rubbers. It ensures a fast, reliable cure without compromising the shelf stability of the unreacted sealant.
3. High-Performance 2K Polyurethane Coatings
Ideal for two-component (2K) PU cross-linked systems, including automotive refinish paints, high-gloss industrial topcoats, and heavy-duty protective coatings. It accelerates the isocyanate-hydroxyl reaction, allowing for faster dust-free and tape-free times.
4. Sealed High-Temp Applications
Recommended for gaskets, engine sealants, and industrial bonding where the cured material will be exposed to heat in a confined space.

Packaging

Available in 25kg steel-plastic composite pails or 200kg drums.

Safety and Storage

Moisture Sensitivity (CRITICAL): Manta CAT-CTHMTS reacts aggressively with moisture. Avoid all contact with water. Containers must be tightly sealed and ideally purged with dry nitrogen after each use.
Storage: Store in a cool, dry warehouse. If the product solidifies during winter (due to its 15-30°C melting point), it should be gently warmed and homogenized before use.
Safety: Avoid contact with skin and mucous membranes. In case of contact, flush immediately with large amounts of water.

Contact Information

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