Inhibitor 701 (4-Hydroxy-TEMPO)

Nitroxyl-radical polymerization inhibitor for selected reactive-monomer processing and storage systems.

CAS No.	EC / List No.	Transport
2226-96-2	218-760-9	Non-dangerous goods

Product Information

Inhibitor 701 is 4-hydroxy-TEMPO, also called TEMPOL, a stable nitroxyl-radical material identified by CAS 2226-96-2. It is used in selected polymerization-control applications. The hydroxyl-substituted material differs from unsubstituted TEMPO and from amine antioxidants.

Specifications

Parameter	Specification
Appearance	Orange-red solid
Assay	≥99.0 %
Melting range	69–72 °C
Water	≤0.50 %
Ash	≤0.10 %
Solubility in ethanol	Clear solution

Supply specifications follow the local 2026 ZXCHEM TDS and apply to the stated commercial grade. Test suitability in the intended process and complete formulation.

Typical Properties

Property	Typical Value
Molecular formula	C9H18NO2
Molecular weight	172.24 g/mol

Applications

Reactive monomer storage: Inhibitor for selected monomer handling and storage development. Determine the suitable concentration, stability and monitoring conditions for the actual monomer.

Acrylate and methacrylate processing: Nitroxyl-radical inhibitor for selected process conditions. Evaluate temperature, residence time, residual inhibitor and subsequent cure behaviour.

Polymerization-control development: Material for controlled formulation studies. Verify the inhibition response and process safeguards before adopting a production practice.

Packaging / Storage

Item	Information
Packing	25 kg cartons with inner plastic bags
Storage	Keep tightly sealed, dry and protected from light. The reference quality-storage recommendation is 2–8°C; segregate from strong oxidizers and reactive contaminants.
Handling	Use enclosed powder feeding or local extraction. Wear suitable protective gloves, eye protection and work clothing; avoid dust inhalation and direct contact. Provide controls for fumes during hot processing.

Company Contact

Supplier	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
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