

Melamine Cyanurate (MCA)

Halogen-free nitrogen-based flame-retardant development in selected polyamides.

CAS No. 37640-57-6	EC / List No. 253-575-7	Transport Non-dangerous goods
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Product Information

Melamine cyanurate is the 1:1 adduct of melamine and cyanuric acid, commonly abbreviated MCA. It is a halogen-free nitrogen-based flame-retardant additive for selected polymer formulations. It is distinct from melamine phosphate, pyrophosphate and polyphosphate grades.

Specifications

Parameter	Specification
Appearance	White fine powder
Assay	≥99.0 %
Moisture	≤0.20 %
Residual melamine	≤0.10 %
Median particle size, D50	≤5 μm
Decomposition temperature	≥300 °C

Supply specifications follow the local ZXCHEM TDS. Values apply to the stated grade; complete-formulation flame performance requires testing.

Typical Properties

Property	Typical Value
Molecular formula	C ₆ H ₉ N ₉ O ₃
Molecular weight	255.20 g/mol

Applications

PA6 and PA66 compounds: Nitrogen-based additive for selected unfilled and mineral-filled polyamides. Evaluate resin drying, dispersion and flame performance at the intended thickness.

Selected polyester systems: Additive for selected PBT development. Assess thermal stability, compatibility, process colour and mechanical properties of the complete compound.

Textile and coating systems: Component for selected binder-based flame-retardant systems. Test dispersion, coating integrity, durability and finished-material fire performance.

Packaging / Storage

Item	Information
Packing	25 kg PE-lined paper bags
Storage	Keep sealed in a cool, dry, ventilated warehouse. Protect from moisture, heat and contamination; store away from incompatible chemicals.
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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