

Decabromodiphenyl Ethane (DBDPE)

Brominated additive flame retardant for selected styrenic, engineering plastic and elastomer compounds.

CAS No. 84852-53-9	EC / List No. 284-366-9	Transport Non-dangerous goods
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Product Information

Decabromodiphenyl ethane, DBDPE, CAS 84852-53-9, is a highly brominated ethane-bridged aromatic additive. It differs structurally from decabromodiphenyl ether, DecaBDE. Keep the exact CAS and chemical structure when comparing replacement materials and assessing an existing formulation.

Specifications

Parameter	Specification
Appearance	White powder
Whiteness	≥89 %
Bromine content	81–82 %
Free bromine	≤10 mg/kg
Average particle size	≤3 μm
Thermal transition	≥340 °C
Volatile matter	≤0.10 %

Supply specifications follow the stated ZXCHEM TDS. Select the grade against the intended process and evaluate the complete formulation.

Typical Properties

Property	Typical Value
Molecular formula	C ₁₄ H ₄ Br ₁₀
Molecular weight	971.22 g/mol

Applications

Styrenic polymer compounds: Brominated additive for selected styrenic formulations. Assess dispersion, impact retention, process colour and finished-material fire performance.

Engineering plastics: Flame-retardant package ingredient for selected engineering resin systems. Test compatibility, thermal processing, electrical and mechanical property retention.

Elastomer formulations: Additive for selected rubber compounds. Evaluate cure response, filler interactions, ageing and the required fire test.

Packaging / Storage

Item	Information
Packing	25 kg bags / 1,000 kg bulk 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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