

1,4-Butanediol Diglycidyl Ether (BDDE)

Low-viscosity difunctional reactive diluent for selected industrial epoxy formulations.

CAS No. 2425-79-8	EC / List No. 219-371-7	Transport Non-dangerous goods
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Product Information

1,4-Butanediol diglycidyl ether, abbreviated BDDE, is a difunctional aliphatic epoxy reactive diluent identified by CAS 2425-79-8. Its glycidyl groups take part in the cured resin network. It differs from butanediol itself and from longer-chain glycol diglycidyl ethers.

Specifications

Parameter	Specification
Appearance	Clear yellow liquid
Color, APHA	≤40
Viscosity at 25°C	10–25 mPa·s
Epoxide equivalent weight	120–135 g/eq
Epoxy value	0.74–0.83 eq/100 g
Hydrolyzable chloride	≤0.30 %
Inorganic chlorine	≤50 mg/kg
Moisture	≤0.10 %

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	C ₁₀ H ₁₈ O ₄
Molecular weight	202.25 g/mol

Applications

Epoxy casting and flooring: Reactive diluent for selected casting and flooring resins. Evaluate mixing viscosity, flow, cure stoichiometry and finished-system service properties.

Coatings and adhesives: Difunctional component for selected epoxy packages. Test wetting, pot life, adhesion, flexibility and water-exposure performance.

Composites and impregnation: Low-viscosity reactive component for selected fibre and impregnation work. Assess penetration, cure conversion and mechanical-property retention.

Packaging / Storage

Item	Information
Packing	20 kg / 200 kg drums / 1,000 kg IBC
Storage	Keep tightly sealed, dry and ventilated, protected from moisture and heat. Separate from acids, bases, oxidizers and curing agents; the selected technical reference recommends refrigerated, inert storage for quality retention.
Handling	Use controlled transfer and ventilation where mist can form. Wear compatible chemical-resistant gloves, splash goggles and protective clothing; prevent skin contact, splashes and aerosol exposure.

Company Contact

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