

Tetrabutylurea

Industrial working-solution solvent for anthraquinone hydrogen-peroxide manufacture.

CAS No. 4559-86-8	EC / List No. 224-929-8	Transport Non-dangerous goods (IMDG / IATA)
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Product Information

Tetrabutylurea is a substituted urea solvent used in anthraquinone-process hydrogen peroxide working solutions. Selection should consider working-material solubility, solvent compatibility and the operating requirements of the plant, rather than treating one solvent as a universal replacement for another.

Specifications

Parameter	Specification
Appearance	Colorless transparent liquid
Tetrabutylurea	≥99.5 % wt
Di-n-butylamine	≤0.10 % wt
Water	≤0.10 % wt
Density at 20°C	0.877 ± 0.003 g/cm ³
Colour, Pt-Co	≤30 Hazen
Interfacial tension against water at 20°C	≥18.0 dyn/cm

Supply values follow the local TDS. Its chlorine/sulfur entries have no units assigned and are not converted into invented concentration limits. Sea/air transport is non-dangerous goods; the SDS also preserves the separate US combustible-liquid entry.

Typical Properties

Property	Typical Value
Molecular formula	C ₁₇ H ₃₆ N ₂ O
Molecular weight	284.49 g/mol

Applications

Hydrogen peroxide working solutions: Solvent component for anthraquinone-process working solutions. Evaluate anthraquinone solubility, phase behaviour and compatibility with the full solvent system.

Industrial solvent-system development: Solvent for selected chemical and formulation systems. Test solubility, stability, material compatibility and recovery behaviour under the intended conditions.

Chemical reaction-medium evaluation: Reaction-medium candidate for industrial synthesis trials. Evaluate reaction compatibility, thermal conditions and safe handling before scale-up.

Packaging / Storage

Item	Information
Packing	170 kg steel drums
Storage	Store closed in a cool, ventilated warehouse below 37°C, away from heat, sparks, flames and oxidizers. Use suitable grounded equipment and keep spill-control materials nearby.
Handling	Use adequate ventilation and chemical-resistant gloves and eye protection. Control ignition sources and static charge during transfer. Avoid splashes, ingestion and repeated exposure to liquid or vapour.

Company Contact

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