

Di-tert-butyl Polysulfide

High-sulfur liquid donor for refinery catalyst sulfiding, furnace coking-control development and lubricant additives.

CAS No. 68937-96-2	EC / List No. 273-103-3	Transport Class 9 — Environmentally hazardous
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Product Information

Di-tert-butyl Polysulfide is an organosulfur material containing a distribution of sulfur-chain lengths between tert-butyl groups. A single molecular weight is therefore not an appropriate commercial identity. The nine-grid shows the chemical family and key sulfur-donor function, while sulfur content is the grade-selection measure.

Specifications

Parameter	Specification
Appearance	Dark brown or tan liquid
Material content, as stated	100 %
Sulfur	≥55 %
Ash	≤0.05 %
Relative density, 20/4°C	1.09–1.18
Odor, source description	Slight odor
Solidifying point	≤–35 °C
Viscosity at 20°C, reference	10 cP
Flash point, open cup	≥100 °C
Initial thermal decomposition range, reference	125–155 °C
Distillation/boiling range, source reference	172–180 °C
Solubility, reference	Soluble in hexane and white spirits

Technical values and packing follow the legacy ZXCHEM TDS. The old C8H26Sx formula and non-hazardous statement are not carried forward: variable sulfur-chain material and current manufacturer Class 9 transport apply. Open-cup supply flash-point limit is distinct from manufacturer closed-cup reference data.

Typical Properties

Property	Typical Value
Chemical Family	Di-tert-butyl organosulfur mixture
Key Function	Sulfur donor / sulfiding agent

Applications

Refinery catalyst sulfiding: Liquid sulfur donor for selected hydrotreating and hydrocracking catalyst activation programs. Set the feed rate from sulfur content and the approved catalyst and equipment procedure.

Lubricant extreme-pressure additives: Organosulfur additive for selected gear oil, grease and industrial lubricant development. Assess base-oil compatibility, corrosion behavior and performance in the complete formulation.

Furnace and specialty process development: Sulfur-containing raw material for selected refinery coking-control and specialty chemical processes. Qualify the decomposition profile and actual operating conditions before scale-up.

Packaging / Storage

Item	Information
Packing	210 kg net drums / 1,100 kg net IBC / 24 MT ISO tank
Storage	Store tightly closed in a cool, dry and well-ventilated area with secondary containment. Keep away from acids, strong oxidizers and unnecessary heat. Protect closures and prevent environmental releases.
Handling	Use controlled liquid transfer and adequate local ventilation. Wear suitable gloves, goggles and protective clothing. Avoid skin contact and vapor or mist exposure; follow the process risk assessment for hot sulfiding operations.

Company Contact

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