

## TMCH-50-AL

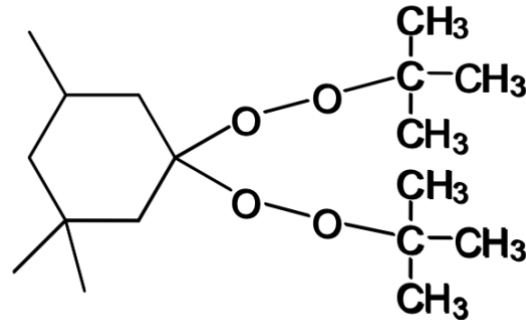
1,1-Bis(tert.butyl peroxy)3,3,5-trimethyl cyclohexane

CAS#6731-36-8

Molar mass: 302.4 g/mol

50% Solution in ali phatics

### Structural Formula



### Description

Colourless, mobile liquid, consisting of 50% w/w 1,1-bis(tert.butyl peroxy)3,3,5-trimethyl cyclohexane, desensitized with ali phatic hydrocarbons. This cyclo-ali phatic perketal is used as an initiator (radical source) for the polymerisation of monomers (e.g. styrene) as well as in the curing of unsaturated polyester resins and the crosslinking of polymers.

### Technical Data

Appearance	colourless liquid
Peroxide content	approx. 50% w/w
Active oxygen	approx. 5.29 % w/w
De-sensitising agent	ali phatics (b.p. > 170°C)
Density at 20°C	approx. 0.83 g/cm <sup>3</sup>
Viscosity at 20°C	approx. 3mPa·s
Refractive index at 20°C	approx. 1.429
Critical temperature (SADT)	approx. 70 °C
Cold storage stability	to below -25 °C
Recommended storage temperature	below 30 °C
Storage stability as from date of delivery	6 months

This product is in compliance with the Elektro G (EU-Directives: RoHS 2002/95/E G, WEEE 2002/96/E G)

### Half-life Data

10 h/1 h/1 min (0.1 m/isododecane): 95 / 114 / 155 °C

## Application

### ETHYLENE:

Initiator for the high pressure polymerisation of ethylene in combination with other peroxides of varying degrees of activity. Temperature range: 200-250°C. Particular advantages: Liquid, even at low temperatures and high pressures. Not sensitive to other components in the polymerisation process.

### STYRENE:

Initiator for the polymerisation of styrene in bulk or suspension. Temperature range: 100-140°C. Usage level: 0.02-0.1% as supplied. Particular advantages: reduced residual monomer contents, no reaction with chain-modifiers (e.g. mercaptans), no hydrolysis in alkaline media. We recommend the combination with more active peroxides, e.g. Dibenzoyl peroxide or tert.butyl per-2-ethylhexanoate.

### OTHER MONOMERS:

Initiator for the polymerisation of vinyl acetate and (meth)acrylates. Temperature range: 90-130°C. Usage level: 0.05-1% as supplied.

Further information on suitable initiators for the polymerisation of monomers is given in our application brochures on this subject.

**Standard Packaging** 20 (44,1 lb) in plastic cans

## Disclaimer

This information and all further technical advice are reflecting our present knowledge and experience based on internal tests with local raw materials with the purpose to inform about our products and applications. The information should not be construed as guaranteeing specific properties of products described or their suitability for a particular application, nor as providing complete instructions for use. The information implies no guarantee for product and shelf life properties, nor any liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. We reserve the right to make any changes according to technological progress or further developments.

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