

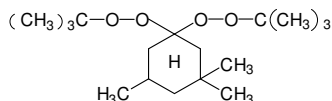
TMCH-75-AL1

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

CAS#6731-36-8

75% Solution in aliphatics or odourless mineral spirits

Structural Formula



Description

Colorless, mobile liquid, consisting of 75% w/w 1,1-bis(tert.butylperoxy)-3,3,5-trimethyl cyclohexane, desensitized with aliphatic hydrocarbons. This cycloaliphatic perketal is used as an initiator (radical source) for the polymerization of monomers (e.g. styrene) as well as the curing of unsaturated polyester resins and crosslinking of polymers.

Technical Data

Appearance	Colorless liquid
Assay	ca. 75 % w/w
Active oxygen	ca. 7.94 % w/w
De-sensitising agent	Aliphatics (b.p. >170 °C)
Density at 20 °C	ca. 0.88 g/cm ³
Viscosity at 20 °C	ca. 8 mPa·s
Refractive index at 20 °C	ca. 1.435
Critical temperature (SADT)	ca. 60 °C
Cold storage stability	To below -25 °C
Recommended storage temperature	Below 40 °C
Maintenance of activity at 25 °C	3 months

Half-life Data

Half-life time: 10h/1h/1min (0.1 m / benzene): 95 °C/114 °C/155 °C.

Application

ETHYLENE:

Initiator for the high pressure polymerization 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 polymerization process.

STYRENE:

Initiator for the polymerisation of styrene in bulk or suspension. Temperature range: 100-140°C. Usage level: 0.02-0.08% 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: 0.04-0.8% as supplied.

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

Storage

Observe the recommended storage temperature range to preserve quality and usefulness and for safety reasons. Observe the safety recommendations of local regulations and codes, requirements of the local authority having jurisdiction, and your insurance provider.

Standard Packaging

This product is packed in 20 Liter Jerricans filled to 30 pounds net weight. Standard Pallet quantities are 900 pounds (30 containers).

Safety & Handling

See our Safety Data Sheet for details. This material is highly hazardous and self-reactive. Avoid heating to above maximum recommended storage temperatures and confinement. Store and handle in ways evaluated by a thorough safety review following process safety management techniques.

REACH

This material is registered under REACH.

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.

Application and usage of our products based on our technical advice is out of our control and sole responsibility of the user. The user is not released from the obligation to conduct careful inspection and testing of incoming goods in order to verify the suitability for the intended application.

United Initiators
EU
T: +49 89 74422 237
F: +49 89 74422 6237
cs-initiators.eu@united-in.com

United Initiators
Nafta
T: +1 800 231 2702
F: +1 440 323 0898
cs-initiators.nafta@united-in.com

United Initiators
China
T: +86 20 6131 1370
F: +86 139 2503 8952
cs-initiators.cn@united-in.com

United Initiators
Australia
T: +61 2 9316 0046
F: +61 2 9316 0034
cs-initiators.au@united-in.com

www.united-initiators.com