

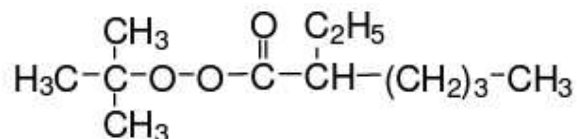
Technical Data Sheet (TDS)

TBPEH
Polymerisations (PO)

TBPEH

tert.Butyl-per-2-ethylhexanoate
CAS#3006-82-4
colourless liquid

Structural Formula



Description

Colourless liquid, consisting of technically pure tert.Butylper-2-ethyl hexanoate. This branched, aliphatic perester is used as a radical initiator in the polymerisation of monomers (ethylene, methacrylate's, etc.).

Technical Data

Appearance	colourless liquid
Assay	ca. 99 % w/w
Active oxygen (AO)	ca. 7.32 % w/w
Density at 20 °C	ca. 0.90 g/cm ³
Viscosity at 20 °C	ca. 4 mPa.s
Refractive index at 20 °C	ca. 1.428
Flash point	ca. 78 °C
Vapour pressure at 20 °C	ca. 0.02 mbar
Critical temperature (SADT)	ca. 35 °C
Cold storage stability	ca. - 25 °C
Recommended storage temperature	max. 10 °C
Maximum transport temperature	20 °C
Storage stability as from date of delivery	3 months

Standard Packaging

25 kg HDPE canister

Half-life Data

10 h / 1 h / 1 min (benzene, 0.1 mol/L) 74 °C / 92 °C / 130 °C

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Application

ETHYLENE:

Initiator for the high-pressure polymerisation of ethylene in combination with other peroxides of varying degrees of activity.

Temperature range: 160 - 210 °C

Particular advantages: highly efficient; liquid, readily miscible with high boiling aliphatics

STYRENE:

Initiator for the polymerisation of styrene in bulk or solution.

Temperature range: 80 - 110 °C

Usage level: 0.08 - 0.4 %

Particular advantage: liquid, therefore easy to dose. Further reduction of residual monomer content in the polymer can be achieved by combination with thermally more stable peresters (e.g. TBPB or TBPIN).

OTHER MONOMERS:

Initiator for the polymerisation of (meth-)acrylates and allyl monomers, possibly in combination with more stable peresters (e.g. TBPB or TBPIN).

Temperature range: 80 - 120 °C

Usage level: 0.3 - 3 %

Decomposition Products

Possible detectable decomposition products: tert. Butylalcohol; Acetone, Heptane

Storage

Avoid any source of heat, light, humidity and protect the product from impurities. Keep within save temperature limits.

Disclaimer:

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