

Technical Data Sheet (TDS)

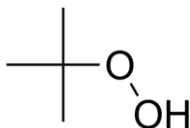
TBHP-70-AQ
Polymerisation (PO)



TBHP-70-AQ

tert-Butyl hydroperoxide
CAS#75-91-2
70%, aqueous solution

Structural Formula



Description

Colourless, mobile liquid consisting of approx. 70 % *tert*-butyl hydroperoxide, desensitised with water. This alkyl hydroperoxide is used as an initiator for the polymerisation of monomers, e.g. ethylene, vinyl acetate or (meth-) acrylates. Due to its oxidation potential TBHP-70-AQ is used as oxidizing agent in numerous chemical syntheses.

Technical Data

Appearance	colourless liquid
Desensitising agent	water
Assay	approx. 70 % w/w
Active oxygen (AO)	approx. 12.5 % w/w
Density at 20 °C	approx. 0.93 g/cm ³
Viscosity at 20 °C	approx. 4.1 mPa·s
Refractive index at 20 °C	approx. 1.387
Aqueous phase at 25 °C	max. 0.7 % v/v
Critical temperature (SADT)	approx. 80 °C
Cold storage stability	freezing point below ca. 0 °C
Recommended storage temperature	2 °C to 35 °C ●
Storage stability as from date of delivery	12 months

Standard Packaging

25 kg HDPE canister
190 kg HDPE drums (for supply ex Germany)
870 kg Plastic IBC

Half-life Data

10 h / 1 h / 1 min (benzene, 0.1 mol/L) 170 °C / 195 °C / 260 °C

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Application

EMULSION POLYMERISATION:

Initiator for the emulsion polymerisation of vinyl acetate, (meth-) acrylates and acrylic resin paint dispersions in combination with suitable reducing agents (Fe salts, sulphites, dithionites, Rongaite, ascorbic acid or sugar).

Temperature range: 50 - 80 °C

Dosage level: 0.1 - 0.5 % as supplied

Particularly suitable for reduction of residual monomer

COPOLYMERISATION:

TBHP-70-AQ is an initiator for the copolymerisation of styrene / butadiene or acrylonitrile / butadiene / styrene in emulsion.

Polymerisation temperatures between 5 and 25 °C are possible in combination with redox systems.

Dosage level: 0.1 - 0.3 % as supplied

CHEMICAL SYNTHESIS:

Selective oxidizing agent for hydrocarbons, olefins, alcohols, etc.

Decomposition Products

Possible detectable decomposition products: *tert*-butyl alcohol, acetone, methane

Storage

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

Disclaimer:

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United Initiators
Europe
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 21 6117 2758
F: +86 139 2503 8952
cs-initiators.cn@united-in.com

www.united-initiators.com