

Technical Data Sheet (TDS)

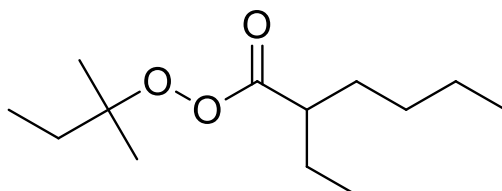
TAPEH
Polymerisation (PO)



TAPEH

tert-Amyl peroxy-2-ethylhexanoate
CAS#686-31-7
Colourless liquid

Structural Formula



Description

Colourless, mobile liquid, consisting of technically pure *tert*-amyl peroxy-2-ethylhexanoate. This branched, aliphatic perester is used as a radical initiator in the polymerisation of monomers, e.g. ethylene, styrene and (meth)acrylates.

Technical Data

Appearance	colourless liquid
Assay	approx. 98 % w/w
Active oxygen (AO)	approx. 6.81 % w/w
Density at 20 °C	approx. 0.9 g/cm ³
Viscosity at 20 °C	approx. 4.3 mPa·s
Refractive index at 20 °C	approx. 1.433
Flash point	approx. 59 °C
Vapour pressure at 25 °C	< 0.1 mbar
Critical temperature (SADT)	approx. 35 °C
Cold storage stability	below -25 °C
Recommended storage temperature	below 10 °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) 72 °C / 91 °C / 130 °C

Application

ETHYLENE:

Initiator for the high-pressure polymerisation of ethylene in combination with other peroxides of different thermal stability

Temperature range: 160 - 210 °C

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

STYRENE:

Initiator for the polymerisation in bulk, solution, or suspension

Temperature range: 80 - 110 °C

Dosage: 0.1 - 0.5 %

Particular advantages: no plasticiser, liquid and therefore easy to dose, high activity

A low residual monomer content can be achieved in combination with other, thermally more stable peroxides.

OTHER MONOMERS:

Initiator for the polymerisation of (meth-)acrylates and allyl monomers

Temperature range: 80 - 120 °C

Dosage: 0.1 - 1 %

In combination with thermally more stable peroxides the residual monomer content in the polymer can be reduced.

Decomposition Products

Possible detectable decomposition products: acetone, *tert*-amyl alcohol, ethyl *tert*-amyl ether

Storage

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

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