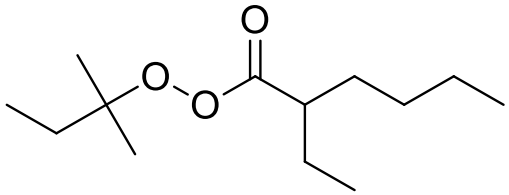
NOROX®411

***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	ca. 98 % w/w
Active oxygen (AO)	ca. 6.81 % w/w
Density at 20 °C	ca. 0.9 g/cm^3
Viscosity at 20 °C	ca. 4.3 mPa·s
Refractive index at 20 °C	ca. 1.433
Flash point	ca. 59 °C
Vapour pressure at 25 °C	< 0.1 mbar
Critical temperature (SADT)	ca. 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

1 gallon bottle
5 gallon Unitainer

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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