

PEROXAN PA-50

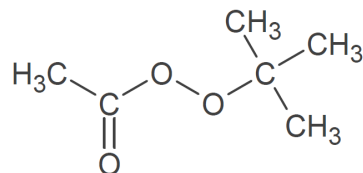
Peroxyester / Polymerization

Description

tert-Butyl peroxyacetate

50%, Solution in odorless white spirits

PEROXAN PA-50 is used for the (co)polymerization of ethylene, styrene, acrylonitrile, acrylates and methacrylates.



Molecular weight:

132.2

CAS No.:

107-71-1

Technical data

Appearance:

clear liquid

Peroxide assay:

appx. 50%

Active oxygen assay:

appx. 6.05%

Density at 20°C:

0.82 g/cm³

Half life time

in chlorobenzene:

$t_{1/2}$	10h	1h	1min
bei	100°C	119°C	157°C

Storage

Maximum storage temperature (Ts max):

10°C

Minimum storage temperature (Ts min):

-15°C

Storage stability as from date of delivery:

6 months

Hazardous reactions

Organic Peroxides are more or less stable products but will decompose under the influence of heat. To minimize a loss of quality during storage, it is important that the recommended maximum storage temperature is not exceeded. If a minimum storage temperature is given, an undesirable process such as a solidification or phase separation, is known to occur below this temperature.

Safety characteristics

SADT:

70°C

The SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which a self accelerating decomposition may occur.

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Application

Polymerization of ethylene:

PEROXAN PA-50 is used for high pressure polymerization of ethylene in both autoclave and tubular processes, usually in combination with other peroxides of varying degrees of activity.

Temperature range: 215 to 250°C

Light-off temperature at 2300 bar: 220°C

Polymerization of styrene:

PEROXAN PA-50 may be used in polymerization and copolymerization of styrene.

In a mass process PEROXAN PA-50 can be used to increase polymerization rates.

In suspension polymerization processes, PEROXAN PA-50 is often used for reduction of residual styrene content during the final polymerization stage.

Temperature range: 100 to 130°C

Dosing: 0,02 to 0,1 phr

Polymerization of acrylates and methacrylates:

PEROXAN PA-50 can be used as initiator for the solution, bulk and suspension (co)polymerization of acrylates and methacrylates.

Temperature range: 100 to 170°C

Dosing: 1 to 3 phr

Other applications:

PEROXAN PA-50 may also be used for the copolymerization of acrylonitrile.

Packaging

20kg container

Major decomposition products

2-Methoxy-2-methylpropane, Acetone, Carbon dioxide, Methane, tert-Butanol

Safety and handling

Please refer to the material safety data sheet (MSDS) for information concerning safe storage, use and handling of PEROXAN PA-50. This information should be thoroughly reviewed prior to acceptance of this product. The MSDS is available for downloading at www.pergan.com or through contacting Pergan directly.

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