

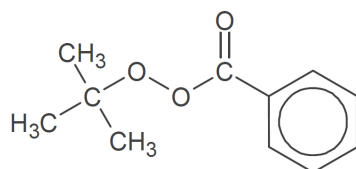
PEROXAN PB

Peroxyester / Polymerization

Description

tert-Butyl peroxybenzoate
98%, Liquid

PEROXAN PB is used for the (co)polymerization of ethylene, styrene, acrylonitrile, vinylacetate, acrylates and methacrylates.



Molecular weight:

194.2

CAS No.:

614-45-9

Technical data

Appearance:

clear, colourless or light yellow liquid

Peroxide assay:

min. 98%

Active oxygen assay:

min. 8.07%

Density at 20°C:

1.04 g/cm³

Half life time

in chlorobenzene:

t _{1/2}	10h	1h	1min
bei	103°C	122°C	160°C

Solubility

Insoluble in water, Soluble in phthalates

Storage

Maximum storage temperature (Ts max):

30°C

Minimum storage temperature (Ts min):

10°C to prevent freezing

Storage stability as from date of delivery:

6 months

Hazardous reactions

Keep packaging tightly closed in a well ventilated place at indicated storage temperature. Keep away from reducing agents e.g. amines, acids, alkalis, heavy metal compounds (e.g. accelerators, driers, metal soaps). Never weigh out in storage room.

Oxidizing agent. Decomposes violently under the influence of heat or by contact with reducing agent. Never mix with accelerators.

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

Flash point:

>SADT°C

SADT:

60°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 PB 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: 220 to 270°C

Light-off temperature at 2300 bar: 225°C

Polymerization of styrene:

PEROXAN PB may be used in polymerization and copolymerization of styrene.

In a mass process PEROXAN PB can be used to increase polymerization rates.

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

Temperature range: 100 to 140°C

Dosing: 0,02 to 0,1 phr

Polymerization of acrylates and methacrylates:

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

Temperature range: 90 to 130°C

Dosing: 0,1 to 1 phr

Other applications:

PEROXAN PB may also be used for the (co)polymerization of acrylonitrile and vinyl acetate.

Packaging

25kg container

Major decomposition products

Acetone, Benzoic acid, Benzene, , Carbon dioxide, tert-Butanol

Safety and handling

Please refer to the material safety data sheet (MSDS) for information concerning safe storage, use and handling of PEROXAN PB. 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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