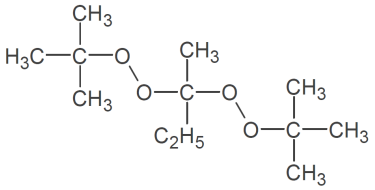
PEROXAN PK234 W

Peroxyketale / Polymerization

Description

2,2-Di-(tert-butylperoxy)-butane
50%, Solution in white oil

PEROXAN PK234 W is used for the (co)polymerization of ethylene, styrene, acrylonitrile, acrylates and methacrylates.



Molecular weight:	**234.2**
CAS No.:	**2167-23-9**

Technical data

Appearance:	**clear liquid**
Peroxide assay:	**appx. 50%**
Active oxygen assay:	**appx. 6.83%**
Density at 20°C:	**0.81 g/cm³**

Half life time

in chlorobenzene:

$t_{½}$	10h	1h	1min
bei	**98°C**	**116°C**	**153°C**

Storage

Maximum storage temperature (Ts max):	**30°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 PK234 W 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: 190 to 250°C Light-off temperature at 2300 bar: 219°C Polymerization of styrene: PEROXAN PK234 W may be used in polymerization and copolymarization of styrene. In a mass process PEROXAN PK234 W can be used to increase polymerization rates. In suspension polymerization processes, PEROXAN PK234 W is often used for reduction of residual styrene content during the final polymerization stage. Temperature range: 90 to 130°C Dosing: 0,02 to 0,1 phr Polymerization of acrylates and methacrylates: PEROXAN PK234 W can be used as initiator for the solution, bulk and suspension (co)polymerization of acrylates and methacrylates. Temperature range: 100 to 140°C Dosing: 0,1 to 1 phr Other applications: PEROXAN PK234 W may also be used for the (co)polymerization of acrylonitrile and divinylbenzene.
Packaging	**20kg container**
Major decomposition products	**2-Methoxy-2-methylpropane, Acetone, Ethane, 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 PK234 W. 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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