

## **PEROXAN DB**

High Polymers Dialkyl peroxides

**Description:** Di-tert-butyl peroxide

98% , Liquid

PEROXAN DB is used for the (co)polymerization of ethylene, styrene, acrylates and methacrylates. PEROXAN DB is also used for the production of controlled rheology polypropylene (CR-PP).

Molecular weight: 146,2 CAS No.: 110-05-4

**Technical data:** Appearance: clear liquid

Peroxide assay: min. 98% Active oxygen assay: min. 10,72%

Density at 20°C: 0,80 g/cm³ Flashpoint: 6°C

**Half life time:** in chlorobenzene

**Storage:** Maximum storage temperature (T<sub>s max</sub>): 30°C

Storage stability as from date of delivery: 6 months

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.

Thermal stability: SADT: 80°C

Emergency temperature (T<sub>em</sub>): 75°C

The SADT is the lowest temperature at which a self accelerating decomposition may occur. The emergency temperature is derived from the SADT. It is the temperature at which emergency actions have to be taken.



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**Application:** Due to its high volatility, PEROXAN DB requires precautions in handling and metering.

Polymerization of ethylene:

PEROXAN DB 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: 240 to 280°C Light-off temperature at 2300 bar: 265°C

Polymerization of styrene:

PEROXAN DB may be used in polymerization and copolymarization of styrene. In a mass process PEROXAN DB can be used to increase polymerization rates.

Temperature range: 95 to 185°C Dosing: 0,02 to 0,1 phr

Polymerization of acrylates and methacrylates:

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

Temperature range (solution polym.): 130 to 175°C Dosing: 0,05 to 0,1 phr

Controlled rheology polypropylene (CR-PP) in an extrusion process:

PEROXAN DB allows great flexibility in controlling the melt flow index (MFI) of polypropylene. Small changes in either peroxide concentration or process temperature can produce significantly different MFIs. The MFI increases with the peroxide level.

Temperature range: 200 to 220°C Dosing: 0,01 to 0,1 phr

**Packaging:** 20 kg Container, 160 kg Drum

Major decomposition products:

t-Butanol, Acetone, Methane

Safety and handling:

Please refer to the material safety data sheet (MSDS) for information concerning safe storage, use and handling of PEROXAN DB. 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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PERGAN GmbH Schlavenhorst 71 Telephone: +49 2871 9902-0

D-46395 Bocholt Telefax: +49 2871 990250 HP/103300/01.09/2004

Germany www.pergan.com Page 2 of 2