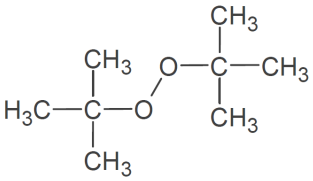
PEROXAN DB-AS

Dialkyl peroxide / Polymerization

Description

Di-tert-butyl peroxide
98%, Liquid

PEROXAN DB-AS is used for the (co)polymerization of ethylene, styrene, acrylates and methacrylates. PEROXAN DB-AS 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:	**0.8 g/cm³**

Half life time

in chlorobenzene:

$t_{½}$	10h	1h	1min
bei	**121°C**	**141°C**	**183°C**

Storage

Maximum storage temperature (Ts max):	**40°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

Flash point:	
SADT:	80°C

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

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Application

PEROXAN DB-AS has a much higher conductivity than PEROXAN DB and lowers significantly the risk of an electrical discharge and improves the handling security.

Polymerization of ethylene:
PEROXAN DB-AS 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-AS may be used in polymerization and copolymarization of styrene. In a mass process PEROXAN DB-AS 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-AS 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-AS 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

20kg container
160kg drum

Major decomposition products

Acetone, 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 DB-AS. 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.

The information presented herein is true and accurate and to the best of our knowledge, but without any guarantee. Since the conditions of use are beyond our control we disclaim any liability, including for patent infringement, incurred in connection with the use of these products, data or suggestions.

Schlavenhorst 71
D-46395 Bocholt
Germany

Phone: +49 (0)2871 / 99 02-0
Fax: +49 (0)2871 / 99 02-50
www.pergan.com