

## DHBP-80-WO

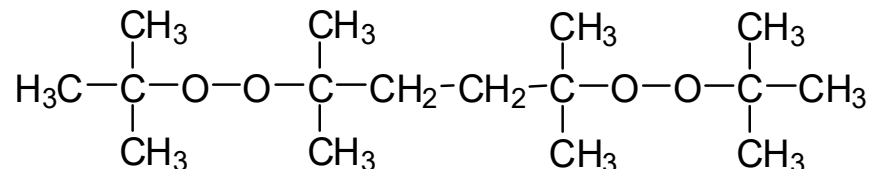
2,5-Dimethyl-2,5-di (tert .butylperoxy) hexane

CAS#78-63-7

Liquid, 80 % solution in white mineral oil

Molar mass: 290.4 g/mol

### Structural Formula



### Description

Colourless, mobile liquid, consisting of 80 % 2,5-Dimethyl 2,5-di(tert .butyl peroxy) hexane in white mineral oil. This bifunctional dialkyl peroxide is used as an initiator (radical source) in the crosslinking of polymers, and the rheology control of polypropylene.

### Technical Data

Appearance	colourless liquid
Purity (GC)	approx. 80 % w/w
Active oxygen (calculated)	approx. 8.9 % w/w
De-sensitising agent	White mineral oil
Density at 20 °C	approx. 0.87 g/cm <sup>3</sup>
Viscosity at 20 °C	approx. 11.4 mPa.s
Refractive index at 20 °C	approx. 1.430
Colour index (Hazen)	approx. 50
Miscibility	not miscible with water, miscible with alcohols, esters
Critical temperature (SADT)	> 80°C
Cold storage stability	freezing point below 0 °C
Recommended storage temperature	max. 40°C
Storage stability as from date of delivery	12 months

This product is in compliance with the ElektroG (E U-Directives: RoHS 2002/95/EG, WEEE 2002/96/EG)

### Half-life-time

10 h/1 h/1 min (0.1 m/benzene): 120/142/190 °C

## Application

### CR-POLYPROPYLEN:

A radical source to control the rheology of polypropylene.

Temperature range: 200-220°C

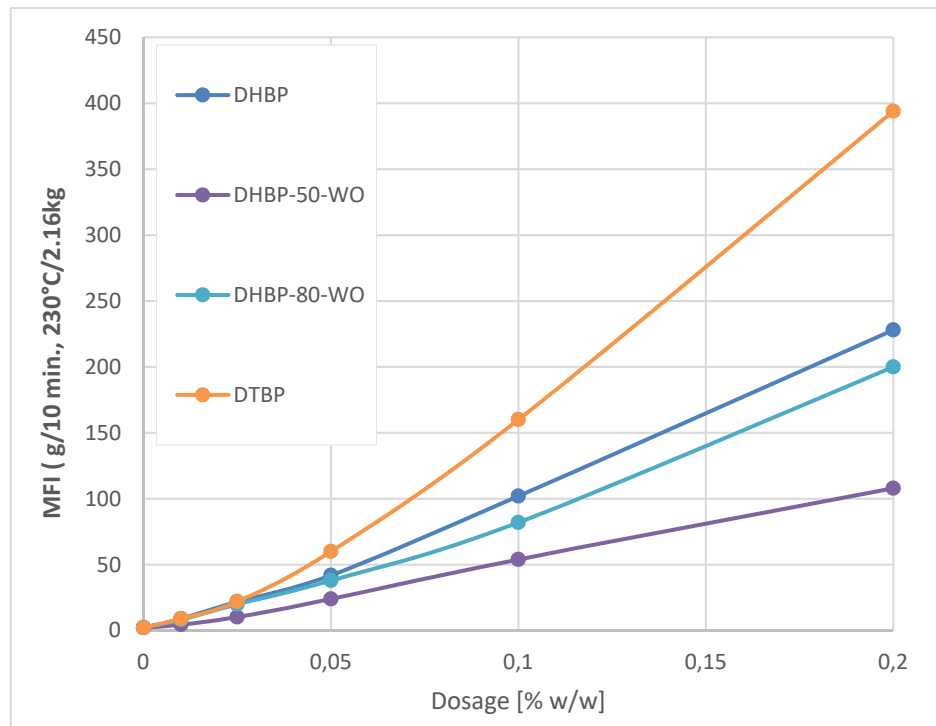
Usage level: 0.01-0.1% w/w of product as supplied, based on polymer.

This degradation, e.g. in an extruder, lowers the molecular weight mean and permits easier (re)processing of the polypropylene. The melt-flow index of the controlled rheology material increases with the peroxide level. (Table 1)

Stabilizers, such as phenolic antioxidants and UV-additives can react as radical scavenger and reduce efficiency of the degradation process. (Table 2.)

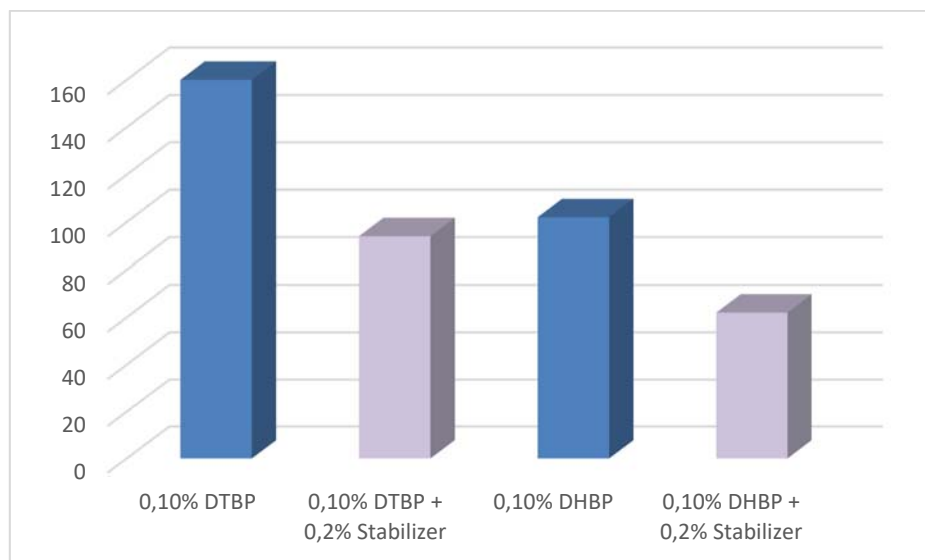
Further information on organic peroxides for polymerisation can be found in our technical brochures on this subject.

### „Vis-breaking“-Efficiency



**Table 1: Influence of Peroxide dosage**

Degradation of an unstabilized standard Polypropylene homopolymer (MFI 2g/10min at 230°C/2.16kg) in a single screw extrusion line at 230°C (40 rpm)



**Table 2: Influence of stabilizer package (UV / Antioxidant – combination)**  
Polypropylene homopolymer ( MFI 2g/10min at 230°C/2.16kg)  
Trials in a single screw extrusion line at 230°C (40 rpm)

## Standard Packaging

25 kg in HDPE canister

## Disclaimer

This information and all further technical advice are reflecting our present knowledge and experience based on internal tests with local raw materials with the purpose to inform about our products and applications. The information should not be construed as guaranteeing specific properties of products described or their suitability for a particular application, nor as providing complete instructions for use. The information implies no guarantee for product and shelf life properties, nor any liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. We reserve the right to make any changes according to technological progress or further developments.

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United Initiators  
**EU**  
T: +49 89 74422 237  
F: +49 89 74422 6237  
cs-initiators.eu@united-in.com

United Initiators  
**Nafta**  
T: +1 800 231 2702  
F: +1 440 323 0898  
cs-initiators.nafta@united-in.com

United Initiators  
**China**  
T: +86 20 6131 1370  
F: +86 139 2503 8952  
cs-initiators.cn@united-in.com

United Initiators  
**Australia**  
T: +61 2 9316 0046  
F: +61 2 9316 0034  
cs-initiators.au@united-in.com

[www.united-initiators.com](http://www.united-initiators.com)