LUPEROX® DHBP

Polymer Initiator

Introduction and Applications

Luperox® DHBP polymer initiator has two main application areas, the viscosity modification of certain polyolefins and the crosslinking of rubber or elastomers. Viscosity modification is a means to modify the melt flow rate of a polymer by chain scission, reducing molecular weight. Luperox® DHBP polymer initiator's very high half-life is also useful in the curing of engineered rubber compounds containing large amounts of fillers like carbon black.

Product Description

Chemical Name	CAS-No.	Wt/Wt
2,5-dimethyl-2,5-di-(tert-butylperoxy)hexane	78-63-7	technically pure

Standard Specifications

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assay	93.0 – 95.0 %		
active oxygen	10.25 – 10.47 %		
di-t-butyl peroxide	≤ 3.00 %		
water	≤ 0.20 %		
color, APHA	≤ 100		

Typical Physical Properties

SADT	80°C (176°F)
specific gravity	0.87 at 20°C
freezing point	8°C (46°F)

Half-Life Data

Half-life can be defined as the time required at a specific temperature, to affect a loss of one-half of the peroxide's active oxygen content. The efficiency of a free radical initiator depends upon its rate of decomposition.

Half-life data can be a useful guide in selecting the optimum initiator for a specific application. Several factors apply to half-life data obtained in dilute solution:

- (a) Use only applies to thermolytic decomposition
- (b) Half-life varies in different solvents due to induced decomposition if no radical scavenger is present

Time	Deg C	Deg F
100 hours	102.1	215.8
10 hours	120.3	248.5
1 hour	140.3	284.5
6 minutes	162.4	324.4
1 minute	181.4	358.5
1 second	231.6	448.9

Temperature Tolerance

Do not store above: 38°C (100°F) Do not store below: 10°C (50°F)

Shelf-Life

Luperox® DHBP polymer initiator has a shelf-life of 12 months from the date of Arkema delivery.

Packaging

Luperox® DHBP polymer initiator is packaged in 25 KG jerricans.

Availability

Luperox® DHBP polymer initiator is available in North America from Arkema and authorized distributors. To discuss availability or speak to a salesperson, please call 844-LUPEROX.



LUPEROX® ORGANIC PEROXIDES WORLDWIDE



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