

CRI-SIL Silicone Technologies, LLC
359 Hill Street
Biddeford, Maine 04005
(207) 283-6422

PRODUCT
DHBP

Product Description

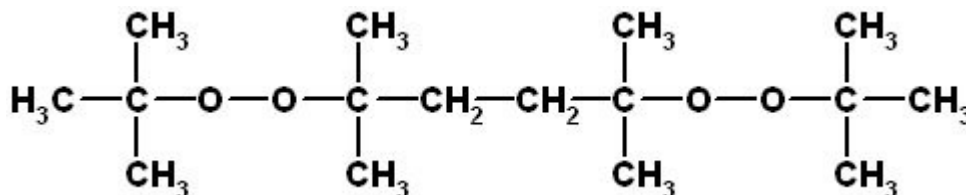
CRI-SIL DHBP (product code: CT0028) is a colorless, mobile liquid, consisting technically pure 2,5-dimethyl-2,5-di(tert butylperoxy) hexane peroxide. This bifunctional dialky peroxide is used as an initiator (radical source) in the cross-linking of rubber at or about 170°C.

Typical Properties

Appearance/Consistency	colorless liquid
Peroxide Content, % (w/w)	92
Active Oxygen, % (w/w)	10.1
Critical Temperature, Celsius (SADT)	~90
Recommended Storage Temperature, Celsius	10 to 30
Storage Stability as from date of delivery, months	6
Half-Life time: 10h/1hr/1min (0.1 m/benzene), Celsius	120/142/190

Chemical Data

Chemical Name:	2,5-dimethyl-2,5-di(tert butylperoxy) hexane peroxide
Chemical Formula:	C ₁₆ H ₃₄ O ₄
CAS-No.	78-63-7
Molar Mass	290.4 g/mol

**Application Information**



Crosslinking information: DHBP peroxide is designed for crosslinking many polymers and elastomers, especially silicone rubber (VQM, FVQM, PQVM).

Crosslinking temperature: is above 170°C, however, below 140°C no premature crosslinking (scorch) occurs.

Usage level: 1-6% of product as supplied on material to be cross-linked. With a few unreactive polymers, crosslinking efficiency can be improved by the addition of 1-5% of coagents (e.g. TAC or EDMA).

Special advantages of this peroxide:

- ✓ Efficient
- ✓ Very versatile for multiple polymers
- ✓ Liquid: giving the ability to be pump-able. So-called “direct dosing” possible within the extruder but also tumbling of polymer powder and liquid peroxide within a drum mixer.
- ✓ Has FDA acceptability under regulation 177.2600, rubber articles in repeated contact with food
- ✓ Volatile, odor free decomposition products
- ✓ No blooming on the vulcanized surface

Storage and Handling

DHBP Catalyst can be used safely as long as the user understands the properties of the material and general precautions are taken. Since this material is an “oxidizing agent” and thermally stable at ambient temperatures some, slight gas evolution occurs. This material should be stored in an area that is less than 20C. It is flammable and should be kept away from open flames or any combustion able source. It will burn fiercely when ignited. If contaminated, decomposition or other reactions can occur followed by gas and heat. In extreme cases of contamination brought on by an action of heat, violent decomposition may take place liberating noxious flammable fumes. Contact with, for example, rags, clothing or combustible materials, organic materials may cause a pressure burst due to gas evolution. The material can cause severe damage to eyes, and is a skin irritant.

Additional Warnings

1. Organic Peroxides may cause eye and skin irritation. Wear gloves and goggles.
2. Danger of Hazardous Decomposition if exposed to heat or contamination. (May cause fire.)
3. Store in cool clean place 5- 30 degrees C. 41 to 86 degrees F. Keep away from direct sunlight.
4. Do not store in contact with amines, cobalt, vanadium accelerators, heavy metal salts, acids, alkalis, reducing compounds, flammable materials, combustibles, mild steel metal dusts.
5. Store any amount over 300lbs in a separate non-combustion able building with a separate blow off roof.
6. Get immediate medical attention if ingested or inhaled

The information and data contained herein are based on information we believe reliable. Each user of the material should thoroughly test any application and independently conclude satisfactory performance before commercializing. Suggestions of uses should not be taken as inducements to infringe any patent. These values are not to be used to set specifications. Each user must evaluate this product for his or her intended use. All information is given in good faith, without warranty, representation, inducement or a license of any kind. CRI-SIL does not assume any legal responsibility for use of or reliance upon same. No warranty or representation is given that CRI-SIL products described will be suitable in buyers and or users formulations or processes for any particular end use. No representation is given as to freedom from patent infringement. Materials not manufactured or supplied by CRI-SIL may present hazards in handling and use. Contact supplier or the manufacturer for all information specific to this these matters.