



Product Data

PERKACIT MBTS

2,2'-Dithiobis(benzothiazole)

CAS Reg. No.: 120-78-5

Molecular weight: 332

FUNCTION

Perkacit MBTS is a medium fast curing primary accelerator for all sulfur curable elastomers.

MAJOR APPLICATIONS AND PROPERTIES

- The widest range of application areas for Perkacit MBTS is in industrial rubber products, including footwear, hose, roofing, automotive, etc.
- Perkacit MBTS gives moderate processing safety and moderately fast cures with a flat plateau.
- The vulcanizate characteristics are similar to those obtained with Perkacit MBT. In fact, Perkacit MBTS can often be used when Perkacit MBT is too scorchy.
- Compounds based on Perkacit MBTS have slightly better aging and reversion resistance than corresponding ones based on sulfenamides.
- Perkacit MBTS can be boosted by use of secondary accelerators to achieve a faster cure and a higher modulus.
- In non-sulfur modified polychloroprenes Perkacit MBTS acts as a scorch retarder.
- The product is non-staining and non-discoloring.
- Perkacit MBTS is regulated for use in articles in contact with food as specified under FDA 21 CFR 177.2600, 175.105 and under BgVV XXI, Categories 1-4.

COMPOUNDING INFORMATION

In conventional curing (CV) systems for NR, Perkacit MBTS levels up to 1.4 phr may be used at sulfur levels of about 2.5 phr. Semi-efficient vulcanization systems (Semi-EV), Perkacit MBTS: 2.5-3.0 phr, sulfur reduced to about 1.0 phr, lead to good aging and reversion resistance. Fully efficient curing (EV) systems based on Perkacit MBTS usually require a sulfur donor such as Sulfasan DTDM and a secondary accelerator (typically: Perkacit MBTS:1.0 phr, Sulfasan DTDM:1.0 phr, Perkacit TMTD: 1.0 phr).

With SBR the use of boosters is normally required to achieve adequate cure times.

In other synthetic polymers Perkacit MBTS is mostly used in conjunction with fast curing accelerators such as Perkacit TMTD and Perkacit ZDEC.

Perkacit MBTS is added as scorch retarder in ETU cured, mercaptan modified CR at levels of 0.5-1.0 phr.

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HANDLING PRECAUTIONS

For detailed information on toxicological properties and handling precautions please refer to the current Safety Data Sheet. This information sheet can be downloaded from our web site or requested from the nearest Flexsys office and should be consulted before handling this product.

STORAGE RECOMMENDATIONS

Store Perkacit MBTS in a cool, dry, well ventilated area, avoiding exposure of the packaged product to direct sunlight.

PRODUCT INFORMATION

Perkacit MBTS Product form	pdr-d dust suppressed powder	
<u>PRODUCT SPECIFICATIONS</u>		<u>Test method</u>
Appearance	cream powder	FF97.5
Assay (titration) (%) min.	95.0	FJo89.1
Free MBT (%) max.	1.0	FJo88.4
Melting point, initial (°C) min.	165	FF83.9
Melting point, final (°C)	171-179	FF83.9
Heat loss (%) max.	0.5	FGr97.7
Ash (%) max.	0.5	FGr90.9
Additive (%)	1.0-2.0	FGr83.6
Residue on 150 µm sieve (%) max.	0.05	FF83.8
Residue on 63 µm sieve (%) max.	0.5	FF83.8
<u>TYPICAL PROPERTIES</u>		
Density at 20°C (kg/m ³)	1540	

Perkacit MBTS is also available as 80% masterbatch.

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