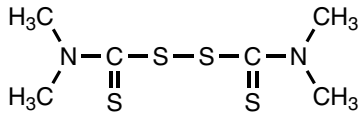
FLEXSYS



Product Data

PERKACIT TMTD

Tetramethylthiuram disulfide

CAS Reg. No.: 137-26-8

Molecular weight: 240

FUNCTION

Perkacit TMTD is used as a primary or secondary (ultra) accelerator in multiple blend accelerator systems with thiazoles and sulfenamides. It is also used as a vulcanizing agent (sulfur donor) in most of the sulfur cured elastomers.

MAJOR APPLICATIONS AND PROPERTIES

- Perkacit TMTD offers fast vulcanization and gives an excellent vulcanization plateau with good heat aging and compression set resistance when used in sulfurless vulcanization systems and EV systems.
- In EPDM Perkacit TMTD is a valuable secondary accelerator.
- In mercaptan modified polychloroprene cured with ETU, Perkacit TMTD acts as a scorch retarder without affecting the cure speed.
- Perkacit TMTD-pdr is recommended over pdr-s for use in soft compounds due to dispersability.
- Perkacit TMTD is non-staining and non-discoloring. Excellent colors are obtained in non-black vulcanizates.
- It should be noted that in the application of Perkacit TMTD N-nitrosodimethylamine can be formed by the reaction of dimethylamine, a decomposition product, with nitrosating agents (nitrogen oxides).
- Perkacit TMTD 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 and "Sonderkategorie".

COMPOUNDING INFORMATION

In NR and SBR Perkacit TMTD is an effective secondary accelerator at the 0.1 to 0.3 phr level.
When used in combination with sulfenamide accelerators, the sulfenamide can be reduced 0.3 phr for each 0.1 phr of Perkacit TMTD to give equal states of cure.
In NBR, EPDM and BR Perkacit TMTD can be used as secondary accelerator at levels of 0.5 to 2.0 phr.
As a sulfur donor Perkacit TMTD contains 13% available sulfur.
A combination of Perkacit TMTD 1.0 phr, Santocure CBS 1.0 phr and Sulfasan DTDM 1.0 phr results in both safe processing and in good performance characteristics without bloom.

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 TMTD in single stacked pallets in a cool, dry, well ventilated area, avoiding exposure of the packaged product to direct sunlight. Double stacking of palletized material and/or exceeding 35°C can result in unusual compaction of product.

PRODUCT INFORMATION

Perkacit TMTD Product form		**pdr-s** crystalline powder	**pdr** powder	**pdr-d** dust suppressed powder	**grs-3mm** 3mm granules	
PRODUCT SPECIFICATIONS						Test method
Appearance		white to off white fine crystals	white to off white powder	white to off white powder	white to off white granules	FF97.5
Assay	(%) min.	99.0	99.0	97.0	98.0	FPot83.8
Melting point, initial	(°C) min.	142	142	142	142	FF83.9
Melting point, final	(°C)	150-157	150-157	150-157	150-157	FF83.9
Heat loss	(%) max.	0.3	0.3	0.3	0.3	FGr97.7
Ash	(%) max.	0.3	0.3	0.3	0.3	FGr90.9
Additive	(%)	-	-	1.0-2.0	-	FGr83.6
Residue on 300 µm sieve	(%) max.	1.0	-	-	-	FGr86.4
Residue on 150 µm sieve *based on pdr formulation	(%) max.	-	0.1	0.1*	-	FF83.8
TYPICAL PROPERTIES						
Density at 20°C	(kg/m^3)	1425	1425	1425	1425	
Bulk density	(kg/m^3)	740-780	410-450	460-500	455-535	
Compacted bulk density	(kg/m^3)	830-870	460-500	510-550	495-545	

Perkacit TMTD is also available as 80% masterbatch.

For further information please contact your local Flexsys office or regional Flexsys headquarters:

Regional Headquarters	:	Brussels	Akron	Singapore
Tel.	:	+32 2 714 32 11	+1 330 666 41 11	+65 872 28 08
Fax	:	+32 2 714 32 32	+1 330 668 83 45	+65 872 28 18