Trigonox 101-45B-PD

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

Dialkyl peroxide, 45% active ingredient on CaCO3 for ease of dispersion in an elastomer compound and controlled dusting.

CAS number EINECS/ELINCS No. 78-63-7 201-128-1

TSCA status Molecular weight listed on inventory 290.4

Active oxygen content Concentration peroxide 4.84-5.06% 11.02%

Specifications

Appearance	White free flowing powder
Assay	44.0-46.0 %

Characteristics

Bulk density, 20 °C	510 (31.8 lb/ft3) kg/m³
Density, 20 °C	1.50 g/cm ³

Applications

Trigonox 101-45B-pd is used for the crosslinking of natural and synthetic rubbers, as well as thermoplastic polyolefins. Rubber compounds containing Trigonox 101-45B-pd have excellent scorch safety.

Thermal stability

Organic peroxides are thermally unstable substances, which may undergo self-accelerating decomposition. The lowest temperature at which self-accelerating decomposition of a substance in the original packaging may occur is the Self-Accelerating Decomposition Temperature (SADT). The SADT is determined on the basis of the Heat Accumulation Storage Test.

SADT	80°C (176°F)
Method	The Heat Accumulation Storage Test is a recognized test method for the determination of the SADT of organic peroxides (see Recommendations on the
	Transport of Dangerous Goods, Manual of Tests and Criteria - United Nations, New
	York and Geneva).

Storage

Due to the relatively unstable nature of organic peroxides a loss of quality can be detected over a period of time. To minimize the loss of quality, Nouryon recommends a maximum storage temperature

Note	When stored under these recommended storage conditions, Trigonox 101-45B-
	pd will remain within the Nouryon specifications for a period of at least six months
	after delivery.

Packaging and transport

Trigonox 101-45B-pd is packed in non-returnable poly-lined cartons of 50 lb net weight. Both packaging and transport meet the international regulations. For the availability of other packed quantities contact your Nouryon representative. Trigonox 101-45B-pd is classified as Organic peroxide type E; solid, Division 5. 2; UN 3108.

Safety and handling

Keep containers tightly closed. Store and handle Trigonox 101-45B-pd in a dry well-ventilated place away from sources of heat or ignition and direct sunlight. Never weigh out in the storage room. Avoid contact with reducing agents (e. g. amines), acids, alkalis and heavy metal compounds (e. g. accelerators, driers and metal soaps). Please refer to the Material Safety Data Sheet (MSDS) for further information on the safe storage, use and handling of Trigonox 101-45B-pd. This information should be thoroughly reviewed prior to acceptance of this product. The MSDS is available at https://polymerchemistry.nouryon.com.

Major decomposition products

Methane, Ethane, Acetone, tert-Butanol, tert-Amylalcohol

All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Nouryon, however, makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nouryon does not accept any liability whatsoever arising out of the use of or reliance on this information, or out of the use or the performance of the product. Nothing contained herein shall be construed as granting or extending any license under any patent. Customer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes. The information contained herein supersedes all previously issued information on the subject matter covered. The customer may forward, distribute, and/or photocopy this document only if unaltered and complete, including all of its headers and footers, and should refrain from any unauthorized use. Don't copy this document to a website.

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