

Perbenzox B 47

Dibenzoyl peroxide, 47% non-phthalate plasticizer

Perbenzox B 47 is a dibenzoyl peroxide presented in the form of a homogeneous paste, containing 47% diluted dibenzoyl peroxide. Perbenzox B 47 is used as a polymerization initiator for unsaturated polyester or vinyl ester resins.

CAS number
94-36-0

EINECS/ELINCS No.
202-327-6

TSCA status
listed on inventory

Molecular weight
242.2

Active oxygen content
peroxide
6.61%

Concentration
3.2%

Specifications

Active oxygen	3.04 - 3.17 %
Assay	46.0 - 48.0 %

Notes:

Perbenzox B 47 can be supplied in three different colors: white, grey and rose.

Applications

Perkadox B 47 is a paste containing 47% dibenzoyl peroxide without phthalate for the curing of unsaturated polyester resins at ambient and elevated temperatures. At temperatures up to 80°C, Perkadox B 47 should be used in combination with an aromatic tertiary amine accelerator, above 80°C the use of an accelerator is not required. Perkadox B 47 has primarily been developed for the putty market. For non-filled systems, Perkadox GB-50L or Perkadox 40E are better applicable with respect to miscibility with the UP resin. Perkadox B 47 shows a very good chemical and physical stability and is therefore very suitable for tube filling. The curing system Perkadox B 47/amine accelerator shows a very fast cure that is hardly influenced by humidity and fillers. Even at low temperatures a relatively good cure will be obtained. A disadvantage may be the yellow color and poor light resistance of the molded product.

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	50°C
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 (Ts max.) for each organic peroxide product.

Ts Max.	30°C
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Note	When stored under these recommended storage conditions, Perbenzox B 47 will remain within the Nouryon specifications for a period of at least 12 months after delivery.
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Packaging and transport

The standard packaging is a HDPE pail for 20 kg peroxide paste. Both packaging and transport meet the international regulations. For the availability of other packed quantities contact your Nouryon representative. Perbenzox B 47 is classified as Organic peroxide type E; solid; Division 5. 2; UN 3108.

Safety and handling

Keep containers tightly closed. Store and handle Perbenzox B 47 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 Safety Data Sheet (SDS) for further information on the safe storage, use and handling of Perbenzox B 47. This information should be thoroughly reviewed prior to acceptance of this product. The SDS is available at nouryon.com/sds-search.

Major decomposition products

Carbon dioxide, benzene, benzoic acid

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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The Nouryon logo consists of a stylized blue 'N' followed by the word 'ouryon' in a lowercase, sans-serif font. The 'N' is significantly larger and more prominent than the rest of the text.