

# Trigonox 77C

Mixture of 1,1-di(tert-butylperoxy)-3,5,5-trimethylcyclohexane and tert-butyl cumyl peroxide, 75% in odorless mineral spirits

Trigonox 77C is a special peroxide blend (75% active ingredient in odorless mineral spirits) used for high-temperature curing.

**CAS number**

3457-61-2; 6731-36-8

**EINECS/ELINCS No.**

222-389-8; 229-782-3

**TSCA status**

listed on inventory

## Specifications

Appearance	Clear liquid
Total active oxygen	6.2-6.4 %

## Characteristics

Density, 20 °C	0.876 g/cm <sup>3</sup>
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## Applications

Trigonox 77C is a peroxide mixture, which is used for the curing of unsaturated polyester resins at elevated temperatures. Trigonox 77C can be used instead of Trigonox C for the curing of UP resin based hot press moulding formulations (SMC, BMC etc.) and electro insulation lacquers in the temperature range of 100-170°C. Trigonox 77C is not, or much less, sensitive for reducing agents like metals, metal based pigments, fillers or amines than peresters like Trigonox C. The stability at ambient temperatures of hot press moulding formulations or electro insulation lacquers initiated with Trigonox 77C is therefore much longer than those initiated with a perester like Trigonox C. Trigonox 77C shows at elevated temperatures a comparable reactivity as Trigonox C. The reactivity of Trigonox 77C cannot be increased by the addition of a cobalt accelerator.

## 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	60°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.	25°C
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Note	When stored according to these recommended storage conditions, Trigonox 77C will remain within the Nouryon specifications for a period of at least 3 months after delivery.
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## Packaging and transport

The standard packaging is a 30-liter HDPE can (Nourytainer) for 25 kg peroxide content. Both packaging and transport meet the international regulations. For the availability of other packed quantities consult your Nouryon representative. Trigonox 77C is classified as Organic peroxide type E; liquid, Division 5.2; UN 3107; PG I

## Safety and handling

Keep containers tightly closed. Store and handle Trigonox 77C 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 Trigonox 77C. This information should be thoroughly reviewed prior to acceptance of this product. The SDS is available at [nouryon.com/sds-search](http://nouryon.com/sds-search).

## Major decomposition products

Carbon dioxide, 3,3,5-trimethylcyclohexanone,

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 orange 'N' followed by the word 'ouryon' in a lowercase, orange, sans-serif font.