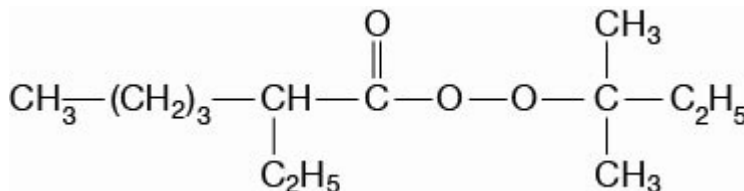


Trigonox 121

tert-Amyl peroxy-2-ethylhexanoate



Trigonox 121 is a high efficiency perester used for curing unsaturated polyester resins at slightly elevated temperatures. Suitable for curing unsaturated polyester, vinylester and acrylic thermosetting resins in the temperature range of 80-130°C.

CAS number
686-31-7

EINECS/ELINCS No.
211-687-3

TSCA status
listed on inventory

Molecular weight
230.3

Specifications

Active oxygen	6.60-6.95 %
Assay	≥ 95.0 %
Hydroperoxides as TAHP	≤ 0.20 %

Characteristics

Appearance	Clear liquid
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Applications

Polymerization of (meth)acrylates: Trigonox 121 can be used to initiate the (co)polymerization of acrylates and methacrylates in the temperature range between 70°C and 120°C. Trigonox 121 can be applied in suspension as well as in solvent and bulk polymerization. **Thermoset:** Trigonox 121, tert-amyl peroxy-2-ethylhexanoate, is a perester which is used for the curing of unsaturated polyester resins at high temperatures. Trigonox 121 is preferred for the curing of UP resin based Hot Press Moulding formulations (such as DMC and BMC) in the temperature range of 120-160°C as such or as a kicker in combination with a low reactive peroxide like e. g. Trigonox C or Trigonox 127. The low reactive peroxide must be included in the formulation in order to achieve a complete cure.

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	35°C
Emergency temperature (T _e)	25°C
Control temperature (T _c)	20°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 (T_s max.) for each organic peroxide product.

T _s Max.	5°C
Note	When stored according to these recommended storage conditions, Trigonox 121 will remain within the Nouryon specifications for a period of at least 3 months after delivery.

Packaging and transport

The standard packaging is a 30-liter HDPE can (Nourytainer) for 25 kg peroxide. Both packaging and transport meet the international regulations. For the availability of other packed quantities consult your Nouryon representative. Trigonox 121 is classified as Organic peroxide type D; liquid, temperature controlled; Division 5. 2; UN 3115; PG II

Safety and handling

Keep containers tightly closed. Store and handle Trigonox 121 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 121. 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, Methane, tert-Amyl alcohol, Heptane, Ethane, Acetone,

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.