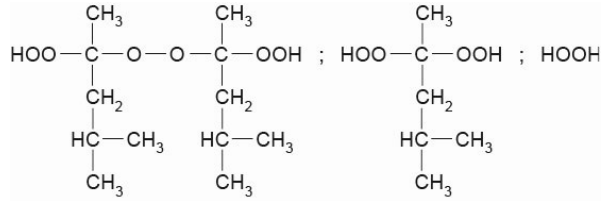


Trigonox HMa

Methyl isobutyl ketone peroxide



Trigonox® HMa is a methyl isobutyl ketone peroxide (MIBKP) formulation for curing unsaturated polyester resins as such or in the presence of a cobalt accelerator in the temperature range of 60-150°C.

CAS number
37206-20-5

EINECS/ELINCS No.
253-396-4

TSCA status
listed on inventory

Specifications

Appearance	Clear liquid
Color	≤50 Pt-Co
Total active oxygen	10.0-10.3 %

Characteristics

Density	0.99 g/cm ³
Viscosity, 20 °C	12 mPa.s

Applications

Trigonox® HMa is a methyl isobutyl ketone peroxide (MIBKP) formulation for the curing of unsaturated polyester resins as such or in the presence of a cobalt accelerator in the temperature range of 60-150°C. Trigonox® HMa can be used in combination with a cobalt accelerator (e.g. Accelerator NL-49PN) for those applications where a long gel time or production time is required at ambient temperature and a fast cure at higher temperatures e.g. 60-100°C. Application area can be: filament winding and production of flat and corrugated sheets. Trigonox® HMa shows also without the addition of a cobalt accelerator a high reactivity at elevated temperatures, which is demonstrated by its low activation temperature. Trigonox® HMa can therefore successfully be used in the temperature range of approximately 80-150°C: for the production of flat and corrugated sheets where a discoloration by the cobalt accelerator is not acceptable, as kicker for the pultrusion application in combination with a low reactive peroxide like Trigonox® 29-IN50 or Trigonox® C. 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	55°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
Note	When stored under these recommended storage conditions, Trigonox® HMa will remain within the Nouryon specifications for a period of at least 6 months after delivery.

Packaging and transport

Trigonox® HMa is packed in 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 contact your Nouryon representative. Trigonox® HMa is classified as Organic peroxide type D; liquid, Division 5.2; UN 3105.

Safety and handling

Keep containers tightly closed. Store and handle Trigonox® HMa 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® HMa. 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 monoxide, water, mixture of aliphatic acids and ketones.

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 logo for Nouryon, featuring a stylized blue 'N' followed by the word 'ouryon' in a blue sans-serif font.