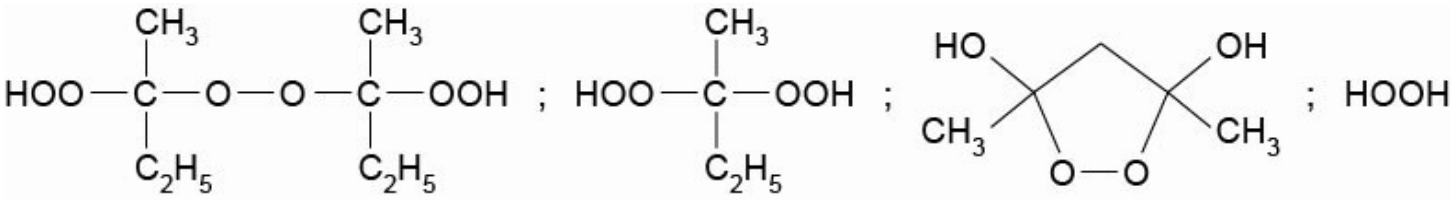
# Trigonox 63

Methyl ethyl ketone peroxide and acetylacetone peroxide, in solvent mixture



Trigonox 63 is an organic peroxide mixture suitable for applications where a shorter demoulding time is required. Faster speed of cure than Trigonox 61 and Butanox M-50, though the high cure rates of Trigonox 44B are not attainable.

CAS number
1338-23-4, 37187-22-7

EINECS/ELINCS No.
215-661-2; 253-384-9

TSCA status
listed on inventory

## Specifications

| | |
|---|---|
| Appearance | Clear liquid |
| Color | 50 Pt-Co max. |
| Total active oxygen | 6.5-6.7 % |

## Characteristics

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|---|---|
| Density, 20 °C | 1.110 g/cm$^3$ |
| Viscosity, 20 °C | 22 mPa.s |

## Applications

Trigonox 63 is an organic peroxide mixture with methyl ethyl ketone peroxide and acetylacetone peroxide for the curing unsaturated polyester resins in the presence of a cobalt accelerator at room and elevated temperatures. With the curing system Trigonox 63/cobalt accelerator a faster speed of cure can be obtained than with Butanox M-50; however the high cure rates achieved with Trigonox 44B are not attainable. The gel times with Trigonox 63 are in general similar to those with Butanox M-50. The curing system Trigonox 63/cobalt accelerator is particularly suitable for the curing of laminating resins, and for applications where a shorter demoulding time is required than obtained with Butanox M-50. Moreover the manufacture of light resistant parts may be possible contrary to the curing system benzoyl peroxide/amine 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 | 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 |
| Ts Min. | -10°C to prevent crystallization |
| Note | When stored under the recommended storage conditions, Trigonox 63 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 solution. Both packaging and transport meet the international regulations. For the availability of other packed quantities contact your Nouryon representative. Trigonox 63 is classified as Organic peroxide type D; liquid, Division 5.2; UN 3105.

## Safety and handling

Keep containers tightly closed. Store and handle Trigonox 63 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 63. This information should be thoroughly reviewed prior to acceptance of this product. The SDS is available at https://polymerchemistry.nouryon.com.

## Major decomposition products

Carbon dioxide, water, methyl ethyl ketone, acetylacetone, mixture of aliphatic acids

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