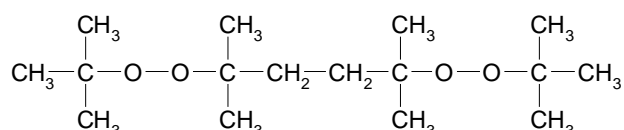


Product Data Sheet

Trigonox[®] 101

Product description

2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane



Molecular weight	: 290.4
Active oxygen content peroxide	: 11.02%
CAS No.	: 78-63-7
EINECS/ELINCS No.	: 201-128-1
TSCA status	: listed on inventory

Trigonox 101 is a bifunctional peroxide which is used for the crosslinking of natural and synthetic rubbers, as well as thermoplastic polyolefins.

Specifications

Appearance	: Clear liquid
Color	: 50 Pt-Co max.
Assay	: 92.0% min.
Active Oxygen	: 10.14% min.
Hydroperoxides as 2,5-dihydroperoxy-2,5-dimethylhexane	: 0.3% max.

Characteristics

Density, 20°C	: 0.870 g/cm ³
Flashpoint	: >65°C (>149°F)
Freezing point	: 6°C (43°F)

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, AkzoNobel recommends a maximum storage temperature (T_s max.) for each organic peroxide product.

For <i>Trigonox</i> 101	T_s max. = 40°C (104°F)
	T_s min. = 10°C (50°F)

When stored under these recommended storage conditions, *Trigonox* 101 will remain within the AkzoNobel specifications for a period of at least six months after delivery.

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.

For <i>Trigonox</i> 101	SADT : 80°C (176°F)
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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).

Major decomposition products

Methane, Ethane, Acetone, tert-Butanol, tert-Amyl alcohol

Packaging and transport

The standard packaging is a 30 l HDPE can (Nourytainer[®]) for 25 kg peroxide formulation.

Both packaging and transport meet the international regulations. For the availability of other packed quantities contact your AkzoNobel representative.

Trigonox 101 is classified as Organic peroxide type C; liquid, Division 5.2; UN 3103.

Safety and handling

Keep containers tightly closed. Store and handle *Trigonox* 101 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 Material Safety Data Sheet (MSDS) for further information on the safe storage, use and handling of *Trigonox* 101. This information should be thoroughly reviewed prior to acceptance of this product.

The MSDS is available at www.akzonobel.com/polymer.

Applications

Trigonox 101 is used for the crosslinking of natural and synthetic rubbers, as well as thermoplastic polyolefins.

- Rubber compounds containing *Trigonox* 101 have excellent scorch safety.
- Safe processing temperature: 135°C (rheometer $t_{s2} > 20$ minutes).
- Typical crosslinking temperature: 175°C (rheometer t_{90} about 12 minutes).

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