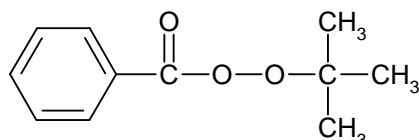




## Trigonox<sup>®</sup> C

**Product description** tert-Butyl peroxybenzoate



Molecular weight	: 194.2
Active oxygen content peroxide	: 8.24%
CAS No.	: 614-45-9
EINECS/ELINCS No.	: 210-382-2
TSCA status	: listed on inventory

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

<b>Specifications</b>	Appearance	: Clear liquid
	Color	: 100 Pt-Co / APHA max.
	Assay	: 98.0% min.
	Active Oxygen	: 8.07% min.
	Hydroperoxides as TBHP	: 0.10% max.
	Inorganic + organic hydrolysable chloride	: 50 mg/kg max.

<b>Characteristics</b>	Density, 20°C	: 1.04 g/cm <sup>3</sup>
	Viscosity, 20°C	: 6.5 mPa.s
	Crystallization point	: 8°C; tends to undercooling

**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 C</i>	$T_s$ max. = 25°C (77°F) and $T_s$ min. = 10°C (50°F) to prevent crystallization
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When stored under the recommended storage conditions, *Trigonox C* 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 C</i>	SADT : 60°C (140°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

Carbon dioxide, Acetone, tert-Butanol, Benzoic acid, Benzene

## Packaging and transport

In North America *Trigonox C* is packed in non-returnable, one gallon polyethylene containers of 8 lb net weight (packed 4 per case) and 5 gallon polyethylene containers of 40 lb net weight.

In other regions the standard packaging is a 30-liter HDPE can (*Nourytainer*<sup>®</sup>) for 25 kg peroxide.

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

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

## Safety and handling

Keep containers tightly closed. Store and handle *Trigonox C* 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 C*. This information should be thoroughly reviewed prior to acceptance of this product.

The MSDS is available at [www.akzonobel.com/polymer](http://www.akzonobel.com/polymer).

## Applications

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

- Rubber compounds containing *Trigonox C* have moderate processing safety in combination with a very high rate of cure.
- Safe processing temperature (rheometer  $t_{s2} > 20$  minutes): 100°C
- Typical crosslink temperature (rheometer  $t_{90}$  about 12 minutes): 140°C
- *Trigonox C* is not recommended for compounds which contain carbon black.

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