

Trigonox® 178

Product description

Methyl ethyl ketone peroxide and cumyl hydroperoxide solution in 2,2,4-trimethyl-1,3-pentanediol diisobutanoate

$$\begin{array}{c|c} & \operatorname{CH_3} \\ & | \\ \operatorname{C} - \operatorname{O} - \operatorname{OH} \\ & | \\ \operatorname{CH_3} \end{array}$$

CAS No. : 1338-23-4; 80-15-9
EINECS/ELINCS No. : 215-661-2; 201-254-7
TSCA status : listed on inventory

Characteristics

Appearance, 20 to 25°C : Clear liquid Active oxygen : 9.1%

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 Trigonox 178 $T_s \text{ max.} = 30^{\circ}\text{C} (86^{\circ}\text{F})$

When stored under these recommended storage conditions *Trigonox* 178 will remain within the AkzoNobel specifications for a period of at least 3 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 Trigonox 178 SADT: 60°C (140°F)

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, Water, Acetic acid, Formic acid, Propionic acid, Methyl ethyl ketone, Acetophenone, 2-Phenylisopropanol, Methane

Packaging and transport

Trigonox 178 is packed in non-returnable, one gallon polyethylene containers of 8 lb net weight (4 per case).

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

Trigonox 178 is classified as Organic peroxide type D; liquid; Division 5.2; UN 3105.

Safety and handling

Keep away from open fire, sparks and other sources of heat or ignition.

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* 178. This information should be thoroughly reviewed prior to acceptance of this product.

Applications

Trigonox 178 is a convenient pre-blended initiator suitable for curing unsaturated polyester, vinyl ester and acrylic thermosetting resins at ambient conditions in conjunction with a metal salt. *Trigonox* 178 produces lower exotherms than standard MEKP's and is useful in warm and hot weather climates. Applications include cast polymer and laminates.

Additional end-use information is available in various application sheets or directly from your AkzoNobel representative.

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