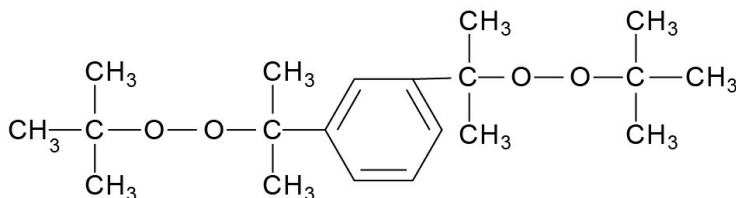


Perkadox 14S-FL

Di(tert-butylperoxyisopropyl)benzene



Perkadox 14S-FL is an initiator for the production of controlled rheology polypropylene (CR-PP) in the temperature range 180-250°C allowing polypropylene producers great flexibility in controlling a polymer's Melt Flow Index (MFI).

CAS number	25155-25-3, 2212-81-9	EINECS/ELINCS No.	218-664-7
TSCA status	listed on inventory	Molecular weight	338.5
Active oxygen content peroxide	9.45%	Concentration	9.26% min.

Specifications

Appearance	Slightly yellow flakes
Assay	≥ 98.0 %

Applications

For Crosslinking: Perkadox 14S-FL is a bifunctional peroxide which is used for the crosslinking of natural rubber and synthetic rubbers, as well as polyolefins. Rubber compounds containing Perkadox 14S-FL have excellent scorch safety, and under certain conditions one step mixing is possible. Safe processing temperature: 135°C (rheometer ts2 > 20 min.). Typical crosslinking temperature: 175°C (rheometer t90 about 12 min.). **For Polymer production:** Controlled rheology polypropylene (CR-PP) High melt-flow index polypropylene grades are produced by post reactor treatment. These high melt-flows are achieved by peroxide-initiated degradation during extrusion of the polypropylene. The advantage of this process is the high flexibility; the peroxide concentration controls the final viscosity. Perkadox 14S-FL is a very efficient initiator in this process. Perkadox 14S-FL also has very low volatility (its vapor pressure is 0.5 mm Hg at 50°C) and thus can be added by mixing into the hopper during extrusion.

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	80°C (176°F)
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.	20°C (68°F) to prevent caking
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Note	When stored under the recommended storage conditions, Perkadox 14S-FL will remain within the Nouryon specifications for a period of at least 6 months after delivery.
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Packaging and transport

The standard packaging is a cardboard box for 4 x 5 kg peroxide. Both packaging and transport meet the international regulations. For the availability of other packed quantities contact your Nouryon representative. Perkadox 14S-FL is classified as Organic peroxide type D; solid, Division 5. 2; UN 3106.

Safety and handling

Keep containers tightly closed. Store and handle Perkadox 14S-FL 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 Perkadox 14S-FL. This information should be thoroughly reviewed prior to acceptance of this product. The SDS is available at nouryon.com/sds-search.

Major decomposition products

tert-Butanol, Methane, Acetone, Bis(2-hydroxyisopropyl)benzene,

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.