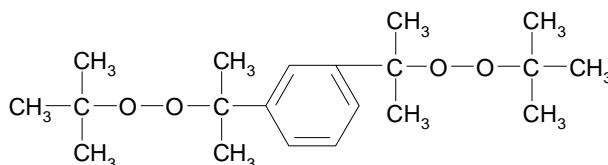


## Product Data Sheet

# Perkadox<sup>®</sup> 14S-fl

**Product description** Di(tert-butylperoxyisopropyl)benzene, flakes



Molecular weight	: 338.5
Active oxygen content peroxide	: 9.45%
actual product	: 9.08% min.
CAS No.	: 25155-25-3; 2212-81-9
EINECS/ELINCS No.	: 218-664-7
TSCA status	: listed on inventory

*Perkadox* 14S-fl is a bifunctional peroxide which is used for the crosslinking of natural and synthetic rubbers, as well as thermoplastic polyolefins.

**Specifications** Appearance : Slightly yellow flakes  
Assay : 96.0 min.

**Characteristics** Density, 20°C : 1.08 g/cm<sup>3</sup>  
Bulk density, 20°C : 400 kg/m<sup>3</sup> (25 lb/ft<sup>3</sup>)  
Melting range : 46-52°C (115-126°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 *Perkadox* 14S-fl  $T_s$  max. = 20°C (68°F) to prevent caking

Please note that *Perkadox* 14S-fl can be safely stored at 30°C (86°F) max. without any loss of activity. When stored under the recommended storage conditions, *Perkadox* 14S-fl will remain within the AkzoNobel specifications for a period of at least 6 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 *Perkadox* 14S-fl SADT : 80°C (176°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

tert-Butanol, Methane, Acetone, Bis(2-hydroxyisopropyl)benzene, 2-(3-Acetylphenyl)-2-propanol

## 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 AkzoNobel 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 [www.akzonobel.com/polymer](http://www.akzonobel.com/polymer).

## Applications

*Perkadox* 14S-fl is used for the crosslinking of natural and synthetic rubbers, as well as thermoplastic polyolefins.

- Compounds containing *Perkadox* 14S-fl have excellent scorch safety, under certain conditions one step mixing is possible.
- 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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