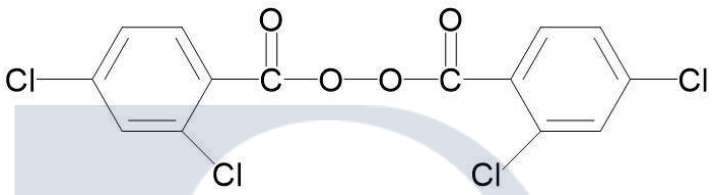
Perkadox OPC-50S-PS

Di(2,4-dichlorobenzoyl) peroxide



Perkadox® OPC-50S-PS is a monofunctional peroxide formulation which is mainly used for the crosslinking of silicone rubbers.

CAS number 133-14-2	EINECS/ELINCS No. 205-094-9
TSCA status listed on inventory	Molecular weight 380.0
Active oxygen content peroxide 4.21%	Concentration 2.06-2.15%

Specifications

Appearance	Off-white homogeneous paste
Assay	49.0-51.0 %
Particle size	≤ 50 µm
Water	≤ 1.5 %

Characteristics

Density, 20 °C	1.18 g/cm^3

Applications

Perkadox® OPC-50S-PS is mainly used for the crosslinking of silicone rubbers. With Perkadox® OPC-50S-PS silicone rubber compounds can be cured without external pressure (hot air and/or IR vulcanization). Perkadox® OPC-50S-PS can easily be incorporated into a silicone rubber compound on a 2-roll mill. Safe processing temperature: 65°C (rheometer ts2 > 20 minutes). Typical crosslinking temperature: 90°C (rheometer t90 about 12 minutes). To obtain a suitable degree of crosslinking in silicone polymers, the level of dosing is recommended to be 1.1-2.3 phr.

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	60°C
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.	30°C
Note	When stored under these recommended storage conditions, Perkadox® OPC-50S-PS will remain within the Nouryon specifications for a period of at least 6 months after delivery.

Packaging and transport

The standard package is a plastic pail with 20 kg net weight. Both packaging and transport meet the international regulations. For the availability of other packed quantities contact your Nouryon representative. Perkadox® OPC-50S-PS is classified as Organic peroxide type C; solid, Division 5. 2; UN 3104.

Safety and handling

Keep containers tightly closed. Store and handle Perkadox® OPC-50S-PS 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® OPC-50S-PS. This information should be thoroughly reviewed prior to acceptance of this product. The SDS is available at nouryon.com/sds-search.

Major decomposition products

Carbon dioxide, 1,3-Dichlorobenzene, 2,4-Dichlorobenzoic acid, Traces of 2,2',4,4' tetrachlorobiphenyl