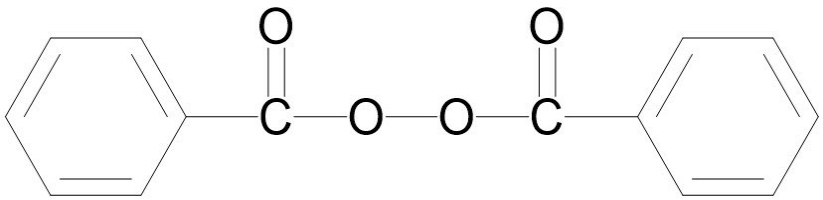
Perkadox 33

Dibenzoyl peroxide, 33% powder with inert fillers



Perkadox® 33 is a special low-concentration BPO formulation (33% peroxide) for curing mine bolts and chemical anchors. The low concentration allows for transporting the product as non-ADR grade. The formulation ensures easy mixing and handling.

CAS number
94-36-0

EINECS/ELINCS No.
202-327-6

TSCA status
listed on inventory

Specifications

Appearance	White powder
Assay	32.0-33.0 %

Characteristics

Density, 20 °C	1.895 g/cm^3

Applications

For some special applications it is desirable to use a dry benzoyl peroxide powder as a catalyst. For these cases the benzoyl peroxide formulation Perkadox® 33 was introduced, which is a mixture of benzoyl peroxide and filler. Perkadox® 33 can be handled very easily and without risk. It contains no plasticizer and is lower concentrated than the usual benzoyl peroxide formulations, which makes dosing easier. One of the most important applications for Perkadox® 33 is as a catalyst for putties based on unsaturated polyester resins. A putty containing an accelerated polyester resin and Perkadox® 33 cures rapidly so that after a short time the surface can be sanded and polished. The putty is made of two components, viz.: a) A powder consisting of a mixture of filler with pigment and Perkadox® 33 as a catalyst. b) A liquid component consisting of polyester resin and N,N-Dimethylaniline (10% formulation in aliphatic ester) or N,N-dimethylparatoluidine (10% formulation in aliphatic ester), or alternatively, a polyester resin with a built-in amine accelerator. When the putty has to be applied component a) and b) are mixed. The manufacturer of these putties should take care that the powder contains Perkadox® 33 and the liquid component the Accelerator, in such amounts that after mixing the two components there is enough time to apply the putty.

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.	25°C
Note	When stored under these recommended storage conditions, Perkadox® 33 will remain within the Nouryon specifications for a period of at least 12 months after delivery.

Packaging and transport

Both packaging and transport meet the international regulations. For the availability of other packed quantities contact The standard packaging is a cardboard box for 20 kg peroxide. Both packaging and transport meet the international regulations. For the availability of other packed quantities contact your Nouryon representative. Perkadox® 33 is classified as Environmentally hazardous substance, solid, n. o. s. (Dibenzoyl chloride), UN 3077, PG III.

Safety and handling

Keep containers tightly closed. Store and handle Perkadox® 33 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® 33. 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, benzoic acid, benzene, diphenyl, phenyl benzoate

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