



G E O[®]
SPECIALTY CHEMICALS

MARKETED BY
**HARWICK STANDARD
DISTRIBUTION CORPORATION**
60 S. Seiberling Street • Akron, Ohio 44305

Product Data

DI-CUP[®] R Dicumyl Peroxide Vulcanizing Agent and Crosslinking Agent

DI-CUP[®] R dicumyl peroxide is a white to pale yellow granular solid that melts at 100°F (38°C). It is used as a high temperature catalyst in the rubber and plastics industries, where it acts as a crosslinking agent for a variety of polymers. Compounds containing Di-Cup[®] normally are processed at temperatures up to 250°F (121°C) and can be cured at temperatures above 300°F (149°C).

General Sales Specifications

Test Methods are available on request

Assay, Dicumyl peroxide, weight % (by Iodine Liberation)	99.0 minimum
---	--------------

Typical Properties

Specific gravity at 25/25°C	1.02
Viscosity at 50°C, cP	10.6
Melting point, °F (°C)	100 (38)
Molecular weight	270

Outstanding Characteristics

Di-Cup[®] R dicumyl peroxide is used as a high temperature catalyst in the rubber and plastics industries. The use of Di-Cup[®] stems from its ability to decompose and form free radicals, which, in turn promote crosslinking. Peroxide cures result in crosslinks of strong carbon to carbon covalent bonds between adjacent polymer chains.

Peroxide vulcanizates exhibit little or no added color, are stable to oxidation, and exhibit higher compression set resistance than sulfur cured vulcanizates. Complete information about its utility can be found in Technical Bulletins ORC-101 (Fundamentals of Crosslinking) and ORC-201M (Di-Cup[®] Dicumyl Peroxide Vulcanizing Agent and Crosslinking Agent).

Soluble at practical concentrations, **Di-Cup[®] R** is soluble in vegetable oil and many organic compounds. It is readily dispersible in natural and synthetic rubber compounds, silicone gums, and polyester resins. It is insoluble in water.

Typical Uses

Di-Cup[®] R can be used to crosslink most polymers, including unsaturated or halogenated elastomers and thermoplastic resins.

DI-CUP® R Dicumyl Peroxide

Page 2 of 2

Available Forms:

Steel pail, 5 gal (25 lbs net wt), DOT-37A

Steel drum, 55 gal (275 lbs net wt), DOT-17H

Semi-bulk container, 460 gal, stainless steel, (3500 lbs net wt), DOT-57 and UN31AY

See MSDS for additional property and handling information.

Storage and Inventory Control

It is strongly recommended that strict control of inventory be observed at all time, taking care that the oldest material is used first. Keep container closed when not in use. Store in a cool, dry, well ventilated area. Do not store near flammable materials. Avoid storing product near incompatible materials (see MSDS Sections 7 and 10). Keep away from heat, flame, sparks and other ignition sources. Do not store in direct sunlight.

Safety Guidelines

Commercial use of **Di-Cup® R** requires that it decompose at a temperature dependent rate. At temperatures below 131°F (55°C), **Di-Cup® R** can be held for several days without significant decomposition or assay loss. However, the handling temperature of **Di-Cup® R** should never exceed 131°F (55°C) because above this temperature the rate of thermal decomposition and heat evolution can increase rapidly and violent decomposition may occur.

North American Regulatory Compliance

DI-CUP® R Dicumyl Peroxide is in compliance with requirements of the U.S. Food and Drug Administration (FDA) for use as specified in the Code of Federal Regulations, Title 21, subject to the limitations and requirements of each regulation under the following Section(s):

175.105	Adhesives
175.300(b)(1)	Resinous and polymeric coatings
177.2420(2)	Polyester resins crosslinked
177.2600(3)	Rubber articles intended for repeated use

- (1) (3)(xxxii) for use only as a polymerization catalyst in side seam cements.
- (2) Catalyst - total catalyst not to exceed 1.5 percent by weight.
- (3) Vulcanizing material - Accelerator - total accelerator not to exceed 1.5 percent by weight.

European Regulatory Compliance

DI-CUP® R Dicumyl Peroxide is in compliance with the requirements of the Bundesgesundheitsamt für Verbraucherschutz und Veterinärmedizin (BgVV) of the Federal Republic of Germany for use in food packaging and food processing operations as specified in the BgVV Recommendations, under the following Chapters and subject to the provisions therein:

None

Product Safety

Read and understand the Material Safety Data Sheet (MSDS) before using this product.

For additional information, and to place an order or sample request, call (888) 519-3883.

MARKETED BY
**HARWICK STANDARD
DISTRIBUTION CORPORATION**
60 S. Seiberling Street • Akron, Ohio 44305