DICUMYL PEROXIDE CAS No 80-43-3	MATERIAL SAFETY DATA SHEET SDS/MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Dicumyl Peroxide

CAS-No. : 80-43-3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd
7/28 Vardaan House
Ansari Road Daryaganj
New Delhi -110002
INDIA

Telephone : +91 11 49404040
Email : care@cdhfinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Organic peroxides (Type F), H242
Skin irritation (Category 2), H315
Eye irritation (Category 2), H319
Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Warning

Hazard statement(s)

H242	Heating may cause a fire.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

H411	Toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
P220	Keep/Store away from clothing/ combustible materials.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410	Protect from sunlight.
P411 + P235	Store at temperatures not exceeding .? °C/ .? °F. Keep cool.
Supplemental Hazard Statements	none

2.3 Other hazards - none

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	:	Bis(α,α-dimethylbenzyl) peroxide Bis(1-methyl-1-phenylethyl) peroxide
Formula	:	$C_{18}H_{22}O_2$
Molecular weight	:	270.37 g/mol
CAS-No.	:	80-43-3
EC-No.	:	201-279-3
Index-No.	:	617-006-00-X

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
Bis(α,α -dimethylbenzyl) p roxide			
CAS-No.	80-43-3	Org. Perox. F; Skin Irrit. 2; Eye Irrit. 2; Aquatic Chronic 2; H242, H315, H319, H411	<= 100 %
EC-No.	201-279-3		
Index-No.	617-006-00-X		

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel.\'20 Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.\'20 Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.Keep away from sources of ignition - No smoking.Keep away from heat and sources of ignition.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in original container. Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

Recommended storage temperature 2 - 8 °C
Storage class (TRGS 510): Organic Peroxides, Solid

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: crystalline Colour: beige
b)	Odour	No data available
c)	Odour Threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	Melting point/range: 39 - 41 °C - lit.
f)	Initial boiling point and boiling range	No data available
g)	Flash point	No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapour pressure	15.4 mmHg at 38 °C
l)	Vapour density	No data available
m)	Relative density	1.56 g/cm3 at 25 °C
n)	Water solubility	0.00046 g/l at 25 °C - slightly soluble
o)	Partition coefficient: n-octanol/water	log Pow: 5.6 at 25 °C
p)	Auto-ignition temperature	No data available

q)	Decomposition temperature	90 °C -
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Heat, flames and sparks.

10.5 Incompatible materials
Strong acids, Strong bases, Strong oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - male and female - >= 2,000 mg/kg(Bis(α,α-dimethylbenzyl) peroxide)
(OECD Test Guideline 401)
LD50 Dermal - Rat - male and female - > 2,000 mg/kg(Bis(α,α-dimethylbenzyl) peroxide)
(OECD Test Guideline 402)

Skin corrosion/irritation
No data available(Bis(α,α-dimethylbenzyl) peroxide)

Serious eye damage/eye irritation
No data available(Bis(α,α-dimethylbenzyl) peroxide)

Respiratory or skin sensitisation
- Mouse(Bis(α,α-dimethylbenzyl) peroxide)
Result: Does not cause skin sensitisation.
(OECD Test Guideline 429)

Germ cell mutagenicity
Hamster(Bis(α,α-dimethylbenzyl) peroxide)
Lungs
Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available(Bis(α,α-dimethylbenzyl) peroxide)

Specific target organ toxicity - single exposure
No data available(Bis(α,α-dimethylbenzyl) peroxide)

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available(Bis(α,α-dimethylbenzyl) peroxide)

Additional Information

Repeated dose toxicity - Rat - male and female - No observed adverse effect level - 60 mg/kg - Lowest observed adverse effect level - 200 mg/kg(Bis(α,α-dimethylbenzyl) peroxide)
RTECS: SD8150000

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 - Daphnia magna (Water flea) - > 1.74 mg/l - 48 h(Bis(α,α-dimethylbenzyl) peroxide) (OECD Test Guideline 202)
Toxicity to algae	Growth inhibition EC50 - Pseudokirchneriella subcapitata (algae) - > 20 mg/l - 72 h(Bis(α,α-dimethylbenzyl) peroxide) (OECD Test Guideline 201)
Toxicity to bacteria	Respiration inhibition NOEC - Sludge Treatment - > 1,000 mg/l - 30 min(Bis(α,α-dimethylbenzyl) peroxide) (OECD Test Guideline 209)

12.2 Persistence and degradability

Biodegradability	aerobic - Exposure time 28 d(Bis(α,α-dimethylbenzyl) peroxide) Result: 0 % - Not biodegradable (OECD Test Guideline 301C)

12.3 Bioaccumulative potential

Bioaccumulation	Cyprinus carpio (Carp) - 56 d - 0.01 mg/l(Bis(α,α-dimethylbenzyl) peroxide) Bioconcentration factor (BCF): 137 - 1,470 (OECD Test Guideline 305C)

12.4 Mobility in soil
No data available(Bis(α,α-dimethylbenzyl) peroxide)

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 3110 IMDG: 3110 IATA: 3110

14.2 UN proper shipping name

ADR/RID: ORGANIC PEROXIDE TYPE F, SOLID (DICUMYL PEROXIDE)
IMDG: ORGANIC PEROXIDE TYPE F, SOLID (DICUMYL PEROXIDE)
IATA: Organic peroxide type F, solid (Dicumyl peroxide)

14.3 Transport hazard class(es)

ADR/RID: 5.2 IMDG: 5.2 IATA: 5.2 (HEAT)

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H242	Heating may cause a fire.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.