Section 1. Product and Company Identification

Product Name Dicumyl Peroxide
CAS Number 80-43-3

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
(914) 654-6800 **(914) 654-6899**
parchem.com **info@parchem.com**

EMERGENCY RESPONSE NUMBER
CHEMTEL
Toll Free US & Canada: 1 (800) 255-3924
All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Organic peroxides (Type F), H242
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Acute aquatic toxicity (Category 2), H401
Chronic aquatic toxicity (Category 2), H411

GHS Label Elements
Pictograms:

Signal word: WARNING

Hazard and precautionary statements
Hazard Statements
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 Statements
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/combustible materials.
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P235 Keep cool.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.
P410 Protect from sunlight.
P420 Store away from other materials.
P501 Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS: None

Section 3. Composition / Information on Ingredients

Common Name Dicumyl Peroxide
Synonym(s) Bis(a,a-dimethylbenzyl) peroxide; Bis(1-methyl-1-phenylethyl) peroxide
Formula $C_{18}H_{22}O_2$
CAS Number 80-43-3

COMPONENT	CAS NUMBER	CONCENTRATION
Dicumyl Peroxide	80-43-3	<= 100%

Section 4. First Aid Measures

Description of first-aid measures
General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin contact: Wash off with soap and plenty of water. Consult a physician.
Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
Indication of any immediate medical attention and special treatment needed: No data available

Section 5. Firefighting Measures

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

Special hazards arising from the substance or mixture: Carbon oxides
Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.
Further information: Use water spray to cool unopened containers.

Section 6. Accidental Release Measures

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

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.
Methods and materials for containment and cleaning up: Sweep up and shovel. 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. 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).
Reference to other sections: For disposal see section 13.

Section 7. Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. 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.

Conditions for safe storage, including any incompatibilities: Store in original container. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature 2 - 8 °C

Section 8. Exposure Controls / Personal Protection

Control parameters
Components with workplace control parameters: Contains no substances with occupational exposure limit values.

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 a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a 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

Information on basic physical and chemical properties
Appearance: Crystalline
Color: Beige
Odor: No data available
Odor Threshold: No data available
pH: No data available
Melting point/freezing point: 39 - 41°C (102 - 106°F) - lit.
Initial boiling point and boiling range: No data available
Flash point: No data available
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapor pressure: 20.5 hPa (15.4 mmHg) at 38°C (100°F)
Vapor density: No data available
Relative density: 1.56 g/cm^3 at 25°C (77°F)
Water solubility: 0.00046 g/l at 25°C (77°F) - slightly soluble
Partition coefficient (n-Octanol/water): log Pow: 5.6 at 25°C (77°F)
Auto-ignition temperature: No data available
Decomposition temperature: 90°C (194°F)
Viscosity: No data available

Explosive properties: No data available
Oxidizing properties: No data available

Other safety information: No data available

Section 10. Stability and Reactivity

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: No data available
Conditions to avoid: Heat, flames, and sparks.
Incompatible materials: Strong acids, Strong bases, Strong oxidizing agents

Hazardous decomposition products
Other decomposition products: No data available
In the event of fire: see section 5

Section 11. Toxicological Information

Information on toxicological effects
Acute toxicity
LD50 Oral - Rat - male and female: >= 2,000 mg/kg (OECD Test Guideline 401)
Inhalation: No data available
LD50 Dermal - Rat - male and female: > 2,000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation: No data available
Serious eye damage/eye irritation: No data available
Respiratory or skin sensitization
- Mouse
Result: Does not cause skin sensitization.
(OECD Test Guideline 429)
Germ cell mutagenicity
Hamster
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.
ACGIH: No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product, present at levels greater than or equal to 0.1%, is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available
Specific target organ toxicity - single exposure: No data available
Specific target organ toxicity - repeated exposure: No data available
Aspiration hazard: No data available
Additional Information
Repeated dose toxicity
Rat - male and female - NOAEL: 60 mg/kg - LOAEL: 200 mg/kg - OECD Test Guideline 407
RTECS: SD8150000

Section 12. Ecological Information

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

Persistence and degradability
Biodegradability aerobic - Exposure time 28 d
Result: 0 % - Not biodegradable
(OECD Test Guideline 301C)
Bioaccumulative potential
Bioaccumulation Cyprinus carpio (Carp) - 56 d
- 0.01 mg/l
Bioconcentration factor (BCF): 137 - 1,470 (OECD Test Guideline 305C)
Mobility in soil: No data available
Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT (US)
UN number: 3110
Class: 5.2
Packing group: II
Proper shipping name: Organic Peroxide Type F, Solid (Dicumyl Peroxide, > 52 - 100%)
Reportable Quantity (RQ): N/A
Poison Inhalation Hazard: No

IMDG
UN number: 3110
Class: 5.2
EMS-No: F-J, S-R
Proper shipping name: Organic Peroxide Type F, Solid (Dicumyl Peroxide)
Marine pollutant: Yes

IATA
UN number: 3110
Class: 5.2 (HEAT)
Proper shipping name: Organic Peroxide Type F, Solid (Dicumyl Peroxide)

Section 15. Regulatory Information

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards: Reactivity Hazard, Acute Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components
Bis(a,a-dimethylbenzyl) peroxide (CAS-No. 80-43-3)
Revision Date: 1989-12-01
New Jersey Right To Know Components
Bis(a,a-dimethylbenzyl) peroxide (CAS-No. 80-43-3)
Revision Date: 1989-12-01

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating
Health: 2
Flammability: 0
Reactivity: 1

NFPA Rating
Health: 2
Flammability: 0
Reactivity: 1
Special hazard: OX

Section 16. Other Information

Disclaimer: 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.

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