# SAFETY DATA SHEET

**Creation Date** 25-Oct-2010 **Revision Date** 22-Apr-2026 **Revision Number** 8

**This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)**

## 1. Identification

**Product Name** **Dibenzoyl peroxide**

**Cat No. :** **AC211780000; AC211780010; AC211780050; AC211781000**

**CAS No** 94-36-0
**Synonyms** Benzoyl peroxide; BPO; Cadet®; Lucidol®; Perkadox® L-W75

**Recommended Use** Laboratory chemicals.
**Uses advised against** Food, drug, pesticide or biocidal product use.

**Details of the supplier of the safety data sheet**

**Company**
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

**Emergency Telephone Number**
For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
**CHEMTREC** Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

## 2. Hazard(s) identification

**Classification**
This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

| | |
|---|---|
| Organic peroxides | Type C |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Skin Sensitization | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system. | |

**Label Elements**

**Signal Word**
Danger

**Hazard Statements**

Heating may cause a fire
May cause an allergic skin reaction
Causes serious eye irritation
May cause respiratory irritation

**Precautionary Statements**
**Prevention**
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Use only outdoors or in a well-ventilated area
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep away from clothing and other combustible materials
Keep only in original packaging
Wear protective gloves/protective clothing/eye protection/face protection
**Inhalation**
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell
**Skin**
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
**Eyes**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
**Storage**
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Store at temperatures not exceeding 40 °C/ 104 °F. Keep cool
Protect from sunlight
Store separately
**Disposal**
Dispose of contents/container to an approved waste disposal plant
**Hazards not otherwise classified (HNOC)**
Very toxic to aquatic life with long lasting effects

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**
No information available

## 3. Composition/information on Ingredients

| Component | CAS No | Weight % |
|---|---|---|
| Dibenzoyl peroxide | 94-36-0 | 75 |
| Water | 7732-18-5 | 25 |

## 4. First-aid measures

**General Advice** If symptoms persist, call a physician.

| | |
|---|---|
| **Eye Contact** | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| **Skin Contact** | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| **Inhalation** | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. |
| **Ingestion** | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur. |
| **Most important symptoms and effects** | None reasonably foreseeable. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing |
| **Notes to Physician** | Treat symptomatically |

## 5. Fire-fighting measures

| | |
|---|---|
| **Suitable Extinguishing Media** | Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. |
| **Unsuitable Extinguishing Media** | Do not use halogenated extinguishing agents or foam |
| **Flash Point** | No information available |
| **Method -** | No information available |
| **Autoignition Temperature** | >380 °C / >716 °F |
| **Explosion Limits** | |
| **Upper** | No data available |
| **Lower** | No data available |
| **Oxidizing Properties** | Oxidizer |
| **Sensitivity to Mechanical Impact** | No information available |
| **Sensitivity to Static Discharge** | No information available |

**Specific Hazards Arising from the Chemical**
In the event of fire, cool tanks with water spray. Dry residue is explosive. Thermal decomposition can lead to release of irritating gases and vapors. Contact with metals may evolve flammable gas. Organic peroxide. May undergo hazardous decomposition. May ignite combustibles (wood paper, oil, clothing, etc.). Do not allow run-off from fire-fighting to enter drains or water courses. These substances will accelerate burning when involved in a fire.

**Hazardous Combustion Products**
Carbon monoxide (CO). Carbon dioxide ($CO_2$).
**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|---|---|---|---|
| 2 | - | 3 | N/A |

## 6. Accidental release measures

| | |
|---|---|
| **Personal Precautions** | Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. |
| **Environmental Precautions** | Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. |

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

## 7. Handling and Storage

**Handling** Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. Keep away from clothing and other combustible materials.

**Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. Keep at temperatures below 40°C. Incompatible Materials. Strong oxidizing agents. Strong reducing agents. Combustible material.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component | ACGIH TLV | OSHA PEL | NIOSH | Mexico OEL (TWA) |
|---|---|---|---|---|
| Dibenzoyl peroxide | TWA: 5 mg/m³ | (Vacated) TWA: 5 mg/m³<br>TWA: 5 mg/m³ | IDLH: 1500 mg/m³<br>REL = 5 mg/m³ (TWA) | TWA: 5 mg/m³ |

*Legend*

*ACGIH - American Conference of Governmental Industrial Hygienists*
*OSHA - Occupational Safety and Health Administration*
*NIOSH: NIOSH - National Institute for Occupational Safety and Health*

**Engineering Measures** Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Wash hands before breaks and immediately after handling the product.

**Personal Protective Equipment**

**Eye/face Protection** Tight sealing safety goggles.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended Filter type:** Particulates filter conforming to EN 143.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

**Appearance**

| | | | |
|---|---|---|---|
| **Physical State** | Solid | | |
| **Color** | White | | |
| **Odor** | Slight | | |
| **Odor Threshold** | No information available | | |
| **Property** | **Values** | **Remarks** | **• Method** |
| **Melting Point/Range** | 104 - 106 °C / 219 - 223 °F | | |
| **Softening Point** | No data available | | |
| **Boiling Point/Range** | No information available | | |
| **Flash Point** | No information available | **Method -** No information available | |

| | | |
|---|---|---|
| **Flammability (liquid)** | Not applicable | Solid |
| **Flammability (solid,gas)** | No information available | |
| **Explosion Limits** | No data available | |
| **Autoignition Temperature** | >380 °C / >716 °F | |
| **Decomposition Temperature** | No data available | |
| **Self-Accelerating Decomposition Temperature (SADT)** | 80 | |
| **pH** | No information available | |
| **Viscosity** | Not applicable | Solid |
| **Water Solubility** | Insoluble | |
| **Solubility in other solvents** | No information available | |

**Partition Coefficient (n-octanol/water)**

| **Component** | **log Pow** |
|---|---|
| Dibenzoyl peroxide | 3.2 |

| | | |
|---|---|---|
| **Vapor Pressure** | No data available | |
| **Density / Specific Gravity** | No data available | |
| **Bulk Density** | No data available | |
| **Vapor Density** | Not applicable | Solid |
| **Particle characteristics** | No data available | |

**Other Information**

| | |
|---|---|
| **Molecular Formula** | C14 H10 O4 |
| **Molecular Weight** | 242.23 |
| **Oxidizing Properties** | Oxidizer |
| **Evaporation Rate** | Not applicable - Solid |

## 10. Stability and reactivity

**Reactive Hazard** Yes

**Stability** This material poses an explosion hazard when dry. Organic peroxide. Hazardous decomposition may occur.

**Conditions to Avoid** Incompatible products. Excess heat. Combustible material. Do not allow evaporation to dryness.

**Incompatible Materials** Strong oxidizing agents, Strong reducing agents, Combustible material

**Hazardous Decomposition Products** Carbon monoxide (CO), Carbon dioxide ($CO_2$)

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Information on expected route of exposure**

**Inhalation** Irritating to respiratory system. May be harmful if inhaled. May cause allergic respiratory reaction. May cause irritation of respiratory tract.

**Ingestion** May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause additional affects as listed under "Inhalation". Ingestion may cause irritation to mucous membranes.

**Eyes** Irritating to eyes. May cause eye irritation with susceptible persons. Moderately irritating to the eyes.

**Skin** Irritating to skin. May be harmful in contact with skin. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

**Toxicology data for the components**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Dibenzoyl peroxide | LD50 = 7710 mg/kg ( Rat ) | - | - |
| Water | - | - | - |

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** Based on available data, the classification criteria are not met

**(c) serious eye damage/irritation;** Category 2

**(d) respiratory or skin sensitization;**

**Respiratory** Based on available data, the classification criteria are not met

**Skin** Category 1

May cause sensitization by skin contact

**(e) germ cell mutagenicity;** Based on available data, the classification criteria are not met

Not mutagenic in AMES Test

**(f) carcinogenicity;** Based on available data, the classification criteria are not met

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| Dibenzoyl peroxide | 94-36-0 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Water | 7732-18-5 | Not listed | Not listed | Not listed | Not listed | Not listed |

**(g) reproductive toxicity;** Based on available data, the classification criteria are not met

**(h) STOT-single exposure;** Based on available data, the classification criteria are not met

**(i) STOT-repeated exposure;** Based on available data, the classification criteria are not met

**Target Organs** None known.

**(j) aspiration hazard;** Not applicable
Solid

**Symptoms / effects,both acute and delayed** Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause

long-term adverse effects in the aquatic environment.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|---|---|---|---|---|
| Dibenzoyl peroxide | EC50 = 0.06 mg/L 72h | LC50 = 0.06 mg/L 96h | Not listed | EC50 = 0.11 mg/L 48h |

**Persistence and Degradability** Insoluble in water

**Bioaccumulation/ Accumulation** No information available.

**Mobility** . Is not likely mobile in the environment due its low water solubility.

| Component | log Pow |
|---|---|
| Dibenzoyl peroxide | 3.2 |

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

**UN-No** UN3104
**Proper Shipping Name** ORGANIC PEROXIDE TYPE C, SOLID
**Technical Shipping Name** DIBENZOYL PEROXIDE
**Hazard Class** 5.2
**Packing Group** II

**TDG**

**UN-No** UN3104
**Proper Shipping Name** ORGANIC PEROXIDE TYPE C, SOLID
**Technical Shipping Name** DIBENZOYL PEROXIDE
**Hazard Class** 5.2
**Packing Group** II

**IATA**

**UN-No** UN3104
**Proper Shipping Name** ORGANIC PEROXIDE TYPE C, SOLID (Dibenzoyl peroxide)
**Technical Shipping Name** DIBENZOYL PEROXIDE
**Hazard Class** 5.2

**IMDG/IMO**

**UN-No** UN3104
**Proper Shipping Name** ORGANIC PEROXIDE TYPE C, SOLID (DIBENZOYL PEROXIDE)
**Technical Shipping Name** DIBENZOYL PEROXIDE
**Hazard Class** 5.2

## 15. Regulatory Information

**United States of America Inventory**

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|---|---|---|---|---|
| Dibenzoyl peroxide | 94-36-0 | X | ACTIVE | - |
| Water | 7732-18-5 | X | ACTIVE | - |

**Legend:**
**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b)** - Notices of Export Not applicable

**International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component | CAS No | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|---|---|---|---|---|---|---|---|---|---|---|
| Dibenzoyl peroxide | 94-36-0 | X | - | 202-327-6 | X | X | X | X | X | KE-09889 |
| Water | 7732-18-5 | X | - | 231-791-2 | X | X | | X | X | KE-35400 |

**KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Component | CAS No | Weight % | SARA 313 - Threshold Values % | SARA 313 - Reporting threasholds |
|---|---|---|---|---|
| Dibenzoyl peroxide | 94-36-0 | 75 | 1.0 % | - |

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

**OSHA** - Occupational Safety and Health Administration Not applicable

| Component | Specifically Regulated Chemicals | Highly Hazardous Chemicals |
|---|---|---|
| Dibenzoyl peroxide | - | TQ: 7500 lb |

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| Dibenzoyl peroxide | X | X | X | - | X |
| Water | - | - | X | - | - |

**U.S. Department of Transportation**

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH**

| Component | CAS No | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---|---|---|---|---|
| Dibenzoyl peroxide | 94-36-0 | - | Use restricted. See entry 75. (see link for restriction details) | - |
| Water | 7732-18-5 | - | - | - |

**REACH links**
*https://echa.europa.eu/substances-restricted-under-reach*

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

| Component | CAS No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---|---|---|---|---|---|
| Dibenzoyl peroxide | 94-36-0 | Listed | Not applicable | Not applicable | Not applicable |
| Water | 7732-18-5 | Listed | Not applicable | Not applicable | Not applicable |

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**
Not applicable

**Other International Regulations**

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---|---|---|---|---|---|
| Dibenzoyl peroxide | 94-36-0 | Not applicable | Not applicable | Not applicable | Not applicable |
| Water | 7732-18-5 | Not applicable | Not applicable | Not applicable | Not applicable |

## 16. Other Information

**Prepared By** Product stewardship (Regulatory Affairs)
Thermo Fisher Scientific
email - begel.sdsdesk@thermofisher.com

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**Revision Date** 22-Apr-2026
**Print Date** 22-Apr-2026
**Revision Summary** Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage,**

**transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

## End of SDS