

# SAFETY DATA SHEET

Creation Date 25-October-2010

Revision Date 18-December-2025

Revision Number 7

This safety data sheet was created pursuant to the requirements of: Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) - SOR 2022-272

## 1. Identification

**Product Name** BENZOYL PEROXIDE

**Cat No. :** B274-1LB; XXB2744KG; NC1807424

**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

**Importer/Distributor**  
Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

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

#### **Emergency Telephone Number**

CHEMTREC®, Inside the USA: 800-424-9300  
CHEMTREC®, Outside the USA: 001-703-527-3887

## 2. Hazard(s) identification

### Classification

**WHMIS 2015 Classification** This product is hazardous in accordance with the Canada Hazardous Products Act (HPA) and Hazardous Products Regulation (HPR), as amended (SOR/2022-272)

<b>Organic peroxides</b>	Type C
<b>Serious Eye Damage/Eye Irritation</b>	Category 2
<b>Skin Sensitization</b>	Category 1
<b>Specific target organ toxicity (single exposure)</b>	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

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  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Use only outdoors or in a well-ventilated area  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves/protective clothing/eye protection/face protection

#### Response

IF ON SKIN: Wash with plenty of soap and water  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Call a POISON CENTER/ doctor if you feel unwell  
 If skin irritation or rash occurs: Get medical advice/attention  
 Take off contaminated clothing and wash it before reuse

#### 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

#### Other Hazards

Very toxic to aquatic life with long lasting effects

## 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.

<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
<b>Most important symptoms/effects</b>	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
<b>Notes to Physician</b>	Treat symptomatically

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Water spray, carbon dioxide (CO <sub>2</sub> ), dry chemical, alcohol-resistant foam.
<b>Unsuitable Extinguishing Media</b>	Do not use halogenated extinguishing agents or foam
<b>Flash Point</b>	No information available
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	>380 °C / >716 °F
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Oxidizing Properties</b>	Oxidizer
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	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<sub>2</sub>).

**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**

<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical hazards</b>
2	-	3	N/A

## 6. Accidental release measures

<b>Personal Precautions</b>	Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.
<b>Environmental Precautions</b>	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.
<b>Methods for Containment and Clean Up</b>	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	Alberta	British Columbia	Ontario TWAEV	Quebec
Dibenzoyl peroxide	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

Component	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
Dibenzoyl peroxide	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

Component	Nunavut	Prince Edward Island	Saskatchewan	Yukon
Dibenzoyl peroxide	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 5 mg/m <sup>3</sup>

Component	ACGIH TLV	OSHA PEL	NIOSH
Dibenzoyl peroxide 94-36-0 ( 75 )	TWA: 5 mg/m <sup>3</sup>	(Vacated) TWA: 5 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	IDLH: 1500 mg/m <sup>3</sup> REL = 5 mg/m <sup>3</sup> (TWA)

**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. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment**

**Eye Protection** Goggles  
**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	Glove comments
Nitrile rubber Neoprene Natural rubber PVC	See manufacturers recommendations	-	Splash protection only

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. 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.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly  
**Recommended Filter type:** Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls**

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.

**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**

**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  
**Flammability (liquid)** Not applicable  
**Flammability (solid,gas)** No information available  
**Explosion Limits** No data available

**Remarks**      • **Method**

**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** Organic peroxide. Hazardous decomposition may occur. This material poses an explosion

hazard when dry. Stable under normal conditions.

**Conditions to Avoid** Incompatible products. Excess heat. Avoid dust formation. Combustible material. Dry residue is explosive.

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

**Hazardous Decomposition Products** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

**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

<b>Proper Shipping Name</b>	ORGANIC PEROXIDE TYPE C, SOLID (Dibenzoyl peroxide)
<b>Technical Shipping Name</b>	DIBENZOYL PEROXIDE
<b>Hazard Class</b>	5.2
<b>IMDG/IMO</b>	
<b>UN-No</b>	UN3104
<b>Proper Shipping Name</b>	ORGANIC PEROXIDE TYPE C, SOLID (DIBENZOYL PEROXIDE)
<b>Technical Shipping Name</b>	DIBENZOYL PEROXIDE
<b>Hazard Class</b>	5.2

## 15. Regulatory information

### International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
Dibenzoyl peroxide	94-36-0	X	-	X	ACTIVE	202-327-6	-	-
Water	7732-18-5	X	-	X	ACTIVE	231-791-2	-	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
Dibenzoyl peroxide	94-36-0	X	KE-09889	X	X	X	X	X	X
Water	7732-18-5	X	KE-35400	X	-	X	X	X	X

#### Legend:

X - Listed '-' - Not listed

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

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

### Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and its amendments and meets the requirements of the HPR (Paragraph 13(1)(a) of the revised Hazardous Products Act (HPA)).

Component	Canada - National Pollutant Release Inventory (NPRI)	Canadian Environmental Protection Agency (CEPA) - List of Toxic Substances	Canada's Chemicals Management Plan (CEPA)
Dibenzoyl peroxide	Part 1, Group A Substance		

### Other International Regulations

#### Authorisation/Restrictions according to EU REACH

Component	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	-	Use restricted. See entry 75. (see link for restriction details)	-

#### REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

#### Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

## 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

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

<b>Prepared By</b>	Product stewardship (Regulatory Affairs) Thermo Fisher Scientific email - begel.sdsdesk@thermofisher.com
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<b>Revision Date</b>	18-December-2025
<b>Print Date</b>	18-December-2025
<b>Revision Summary</b>	This document has been updated to comply with the requirements of WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) to align with the Globally Harmonised System (GHS) (V7/8) for the Classification and Labelling of Chemicals.

**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**