

Safety Data Sheet (SDS) 3/17/2025: File reviewed, more current MSDS/SDS not available. CAS

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Benzoyl Peroxide

Signal Word
DANGER

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261

Chemtrec Emergency Phone Number: (800) 424-9475

Pictograms

SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Self-reactive substances and mixtures; and Organic peroxides (Type B). Heating may cause a fire or explosion (H241). Keep away from heat, sparks, open flames, and hot surfaces. No smoking (P210).



Hazard class: Sensitization, skin and respiratory tract (Category 1). May cause an allergic skin reaction or asthma symptoms or breathing difficulties if inhaled (H317+H334). Avoid breathing dust or fumes (P261).



Hazard class: Serious eye damage or irritation (Category 2A). Causes serious eye irritation (H319).



SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Benzoyl peroxide	94-36-0	(C ₆ H ₅ CO) ₂ O ₂	242.23	
Synonyms: Dibenzoyl peroxide; Benzoic acid peroxide				

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340).

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists eyes:** Get medical advice or attention (P337+P313).

If on skin: Wash with plenty of water (P302+P352). **If skin irritation or rash occurs:** Get medical advice or attention (P333+P313). **If swallowed:** Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Combustible solid.

Easily ignited and burns rapidly. Powerful oxidizer and dangerous explosion hazard: may explode spontaneously upon heating or friction. When heated to decomposition, may emit toxic fumes.

NFPA Code
None established

In case of fire: Use a tri-class dry chemical fire extinguisher. Evacuate area (P370+P380+P375).

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and water. Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #6. Store with peroxides, hydroperoxides, and azides.

Store in a Flinn Chem-Saf™ can. Keep only in original container (P234). Keep cool (P235).

Avoid storing this item (see Section 10).

Keep and store away from clothing and combustible materials (P220). Use only in a hood or well-ventilated area (P271).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling. Use only in a hood or a well-ventilated area (P271). In case of inadequate ventilation, wear respiratory protection (P285).

Contaminated work clothing should not be allowed out of the workplace (P272).

Exposure guidelines: PEL/TLV 5 mg/m³ (OSHA/ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

White to gray crystalline powder. Faint almond-like odor.

Melting point: 103-105 °C

Refractive index: 1.543

Soluble: Many organic solvents. Slightly in water.

Specific gravity: 1.33

SECTION 10 — STABILITY AND REACTIVITY

Material must be moist. May explode spontaneously when dry. Never use unless 33% water is present. Avoid strong acids, alkalis, and oxidizers. Use no sparking tools for handling.

Shelf life: Poor. Plan not to store an item like this.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Irritant, sensitizer.

ORL-RAT LD₅₀: 7710 mg/kg

Chronic effects: Possible tumor promoter.

IHL-RAT LC₅₀: N.A.

Target organs: N.A.

SKN-RBT LD₅₀: N.A.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #22b is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Organic Peroxide Type B, Solid (Dibenzoyl Peroxide). Hazard class: 5.2. UN number: UN3102.

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (202-327-6), RCRA code D001, D003.

SECTION 16 — OTHER INFORMATION

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N.A. = Not available, not all health aspects of this substance have been fully investigated.

N/A = Not applicable

Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.

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