



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
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SAFETY DATA SHEET (SDS)

Benzyl Peroxide Powder (BPP)

SDS

REV 3.1
29 JULY 2026
GHS REV.11 (2025)

CAS 94-36-0 EC 202-327-6 SIGNAL WORD DANGER

GHS01

Explosive / Self-
reactive

GHS02

Flammable /
Organic Peroxide

GHS07

Harmful / Irritant

GHS09

Environmental
Hazard

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product Name	Benzyl Peroxide Powder (BPP)
Product Type	Benzoyl Peroxide — industrial chemical
Chemical Family	Organic Peroxide
CAS No.	94-36-0
EC No.	202-327-6
Intended Use	Industrial chemical intermediate; initiator for polymerisation; bleaching agent; pharmaceutical/cosmetic active.
Restrictions on Use	Industrial / professional use only. Confirm suitability for final application before use.
Supplier	Supreme Petro Chemicals
Address	No. 145, 1st Floor, Raja Muthiah Road, Periyamet, Chennai – 600003, India
Emergency Contact	Sanketh — +91 86087 80096 · Sudarshan — +91 81979 47045
Email	admin@supremepetrochemicals.com
Product Page	https://www.supremepetrochemicals.com/products/benzyl-peroxide-powder-bpp
SDS Revision	July 2026
SDS Version	3.1



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SECTION 2 HAZARD IDENTIFICATION

Org. Perox. D/E; Skin Sens. 1; Eye Irrit. 2; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 1

Signal Word

DANGER

GHS Pictograms

GHS01 (Explosive / Self-reactive) · GHS02 (Flammable / Organic Peroxide) · GHS07 (Harmful / Irritant) · GHS09 (Environmental Hazard)

HAZARD STATEMENTS

- H241 — Heating may cause a fire or explosion
- H242 — Heating may cause a fire
- H317 — May cause an allergic skin reaction
- H319 — Causes serious eye irritation
- H335 — May cause respiratory irritation
- H400 — Very toxic to aquatic life
- H410 — Very toxic to aquatic life with long lasting effects

PRECAUTIONARY – PREVENTION

- P210 — Keep away from heat, hot surfaces, sparks, open flames. No smoking.
- P233 — Keep container tightly closed.
- P240 — Ground/bond container and receiving equipment.
- P241 — Use explosion-proof electrical/ventilating/lighting equipment.
- P242 — Use only non-sparking tools.
- P243 — Take precautionary measures against static discharge.
- P260 — Do not breathe vapours or spray.
- P271 — Use only outdoors or in a well-ventilated area.
- P272 — Contaminated work clothing should not be allowed out of the workplace.
- P273 — Avoid release to the environment.
- P280 — Wear protective gloves / eye protection / face protection.

PRECAUTIONARY – RESPONSE / STORAGE / DISPOSAL



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- P301+P310 — IF SWALLOWED: Immediately call a POISON CENTER or doctor.
- P303+P361+P353 — IF ON SKIN OR HAIR: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 — IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P331 — Do NOT induce vomiting.
- P312 — Call a POISON CENTER or doctor if you feel unwell.
- P403+P235 — Store in a well-ventilated place. Keep cool.
- P405 — Store locked up.
- P501 — Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	EC NO.	% w/w	GHS CLASSIFICATION
Benzoyl Peroxide (Benzyl Peroxide Powder — BPP)	94-36-0	202-327-6	100	Org. Perox. D/E; Skin Sens. 1 (H317); Eye Irrit. 2 (H319); STOT SE 3 (H335); Aquatic Acute 1 (H400); Aquatic Chronic 1 (H410)

Full text of H-statements listed in Section 16. Percentages are by weight (w/w). Commercial grades may contain phlegmatizer (e.g. water, mineral oil) — verify purity and active content from supplier Certificate of Analysis before use.

SECTION 4 FIRST AID MEASURES

Inhalation	Remove person to fresh air immediately. Keep at rest in a position comfortable for breathing. If breathing is laboured, administer oxygen. Seek medical attention if symptoms persist.
Skin Contact	Remove contaminated clothing immediately. Wash affected skin thoroughly with soap and water for at least 15 minutes. Seek medical attention if irritation, redness, or allergic reaction develops or persists.
Eye Contact	Rinse cautiously with clean water for at least 15 minutes. Remove contact lenses if present and easy to do — continue rinsing. Seek immediate medical attention.



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Ingestion	Rinse mouth with water. Do NOT induce vomiting. Seek immediate medical advice or call a POISON CENTER. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Note to Physician	Treat symptomatically. Organic peroxide — risk of delayed irritation and sensitisation. No specific antidote; supportive care based on symptoms and route of exposure.

SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Large quantities of water spray (flood cooling). Dry chemical, CO ₂ , or foam may be used for small fires. Water is preferred for organic peroxide fires to cool containers and control decomposition.
Unsuitable Media	Do not use high-pressure water jet — may spread burning material. Avoid dry sand for large fires.
Specific Hazards	Benzoyl peroxide is an organic peroxide — heating or contamination can cause rapid decomposition, fire, or explosion. Decomposition produces carbon oxides, benzene vapour, and irritating/toxic fumes. Dust or fine powder may form combustible atmospheres. Containers may rupture violently when heated.
Protective Equipment	Wear full protective clothing (flame-resistant) and self-contained breathing apparatus (SCBA). Do not enter fire area without adequate protection.
Special Procedures	Evacuate non-essential personnel from immediate area. Flood containers with water to cool. Prevent contaminated fire-water run-off from entering drains, sewers, or waterways. If safe to do so, move intact containers away from fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate spill area. Keep unnecessary persons away. Use full PPE as specified in Section 8. Eliminate all ignition sources (no sparks, flames, or hot surfaces). Avoid generating dust.
Environmental Precautions	Prevent entry into drains, sewers, soil, and watercourses. Notify local environmental authorities if significant release occurs. Benzoyl peroxide is very toxic to aquatic organisms.
Containment / Clean-up	Collect spilled material carefully using non-sparking tools into labelled, closeable, compatible containers. Do not use combustible



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absorbents (sawdust). Wet material slightly with water to suppress dust. Avoid dry sweeping. Dispose via authorised waste contractor.

Reference to Sections

See Section 8 for PPE, Section 13 for disposal, Section 15 for regulatory information.

SECTION 7 HANDLING AND STORAGE

Handling Precautions

Use adequate local exhaust ventilation. Avoid contact with skin, eyes, and clothing. Avoid generating or inhaling dust. Keep away from heat, ignition sources, and incompatible materials. Use only non-sparking tools and explosion-proof equipment. Ground equipment to prevent static discharge.

Hygiene

Wash hands thoroughly after handling. Remove and launder contaminated clothing before reuse. Do not eat, drink, or smoke when using this product. Provide eyewash and safety shower in handling areas.

Storage Conditions

Store in original, tightly closed, compatible containers in a cool, dry, well-ventilated location away from direct sunlight, heat sources, and ignition sources. Keep locked up when not in use.

Storage Temperature

Below 30 °C (86 °F). Refrigeration recommended for prolonged storage. Do not freeze.

Incompatible Materials

Strong oxidising agents, strong reducing agents, strong acids, strong bases, heavy metal salts (promoters), amines. Avoid contact with aluminium chloride at elevated temperature.

Segregation

Segregate from food, drink, animal feed, combustible materials, and incompatible chemicals. Store away from flammable liquids and sources of contamination.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit

Benzoyl peroxide (CAS 94-36-0): ACGIH TLV-TWA 5 mg/m³ (inhalable fraction); OSHA PEL 5 mg/m³ (8h TWA); NIOSH REL 5 mg/m³. India: refer to applicable Factory Rules / Schedule EL limits. Verify current local OEL before use. Apply ALARA principle where limits not established.

Engineering Controls

Use closed or enclosed handling systems where practicable. Provide local exhaust ventilation (LEV) to capture dust at source. Ensure



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	general dilution ventilation to prevent dust accumulation. Use explosion-proof ventilation equipment.
Respiratory Protection	Where dust or decomposition vapours cannot be adequately controlled by ventilation, use NIOSH/EN-approved respirator with P100 (HEPA) particulate filter or combination organic-vapour/particulate cartridge. Use SCBA for emergency or fire scenarios.
Hand / Eye / Skin	Hands: chemical-resistant gloves (nitrile ≥ 0.4 mm or neoprene; verify breakthrough time for task duration). Eyes: EN 166/ANSI Z87.1 chemical splash goggles; add face shield for bulk transfer. Body: chemical-resistant apron/coverall, safety footwear with antistatic properties. Provide eyewash station and safety shower.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White to off-white crystalline powder or granules
Odour	Faint, benzaldehyde-like odour
Odour Threshold	Not established
pH	Not applicable (solid; not applicable unless in aqueous solution)
Melting / Freezing Point	103–105 °C (217–221 °F) — decomposes on/above melting point; do not attempt to distil
Boiling Point / Range	Decomposes explosively above melting point; does not reach boiling point
Flash Point	80 °C (176 °F) — closed cup
Auto-ignition Temperature	See PubChem experimental properties / supplier SDS for confirmed value
Flammability Limits	See supplier SDS for confirmed value
Vapour Pressure	<0.1 mmHg at 20 °C (68 °F) — very low; solid at ambient conditions
Vapour Density (air = 1)	Not applicable (solid at ambient conditions)
Relative Density	1.334 at 15 °C (59 °F)
Solubility in Water	<1 mg/mL at 26 °C (79 °F) — sparingly soluble
Log Pow (Partition Coeff.)	3.46
Evaporation Rate	Not applicable (solid)
Viscosity	Not applicable (solid)
VOC Content	Negligible (solid material)



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SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions (cool, dry, away from ignition sources and incompatibles). Unstable to heat — decomposes exothermically above approximately 70–80 °C and explosively at or above melting point.
Conditions to Avoid	Heat, direct sunlight, ignition sources (sparks, flames, hot surfaces), contamination with promoters (amines, heavy metals, reducing agents), friction, shock.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates); strong reducing agents; concentrated acids and halogens; heavy metal salts (act as decomposition promoters); amines. Reactive with aluminium chloride (AlCl_3) at elevated temperature — not a concern under normal ambient storage.
Hazardous Decomposition	Thermal decomposition and combustion produce carbon dioxide (CO_2), carbon monoxide (CO), benzene vapour, and irritating/toxic organic fumes. Benzoyl radicals generated on decomposition are reactive.
Hazardous Reactions	No hazardous self-accelerating decomposition (SADT) under normal storage if kept cool and dry. Rapid exothermic decomposition can occur above 70–80 °C or on contact with incompatible materials. Potential for deflagration or explosion in confined systems.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	Rat LD_{50} : 7,710 mg/kg (relatively low acute oral toxicity). See Section 2 classification; consult ECHA/PubChem for full endpoint data.
Acute Dermal Toxicity	No LD_{50} classification assigned; classified as Skin Sens. 1 (H317). Dermal absorption is possible. See Section 2.
Acute Inhalation Toxicity	No specific LC_{50} established in public sources. Dust/powder is a STOT SE 3 (H335) — may cause respiratory irritation. Supplier confirmation required for numeric endpoint.
Skin Irritation	May cause skin sensitisation (H317 — Skin Sens. 1). Known contact allergen. Can cause contact dermatitis on repeated or prolonged exposure.
Eye Irritation	Causes serious eye irritation (H319 — Eye Irrit. 2). Redness, tearing, and pain on contact.



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Sensitisation	Skin sensitiser (H317). Recognised occupational allergen; avoid repeated skin contact.
Carcinogenicity	Not classified as a carcinogen under GHS. IARC Group 3 (not classifiable as to its carcinogenicity to humans). NTP and OSHA: not listed as carcinogen.
Mutagenicity	Not classified as a mutagen under GHS. No evidence of genotoxicity at relevant exposure levels in standard tests.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	Very toxic to aquatic life (H400, Aquatic Acute 1). Very toxic to aquatic life with long lasting effects (H410, Aquatic Chronic 1). Fish LC ₅₀ (96h): <1 mg/L reported. Daphnia EC ₅₀ (48h): <1 mg/L reported. Prevent all releases to water bodies.
Persistence / Degradability	Hydrolyses rapidly in water to benzoic acid and hydrogen peroxide. Benzoic acid is readily biodegradable. However, acute aquatic toxicity necessitates prevention of release regardless of ultimate degradation.
Bioaccumulation	Log Kow 3.46 — moderate potential for bioaccumulation. BCF not definitively established; treat with precaution. Monitor supplier/ECHA data for updates.
Mobility in Soil	Sparingly soluble; low mobility in soil. May adsorb to organic matter. Prevent release to soil and groundwater.
Other Adverse Effects	Avoid uncontrolled release to the environment. Manage all releases and waste under applicable local environmental regulations.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste from Product	Dispose of product and contaminated materials through an authorised hazardous waste contractor in accordance with local, state, and national regulations. Do not allow to enter drains, sewers, or the environment. Do not incinerate without explosion-proof facilities capable of handling organic peroxides.
Contaminated Packaging	Empty containers may retain residues and remain hazardous. Handle as hazardous waste until thoroughly cleaned or disposed of by an authorised contractor. Do not re-use for food, feed, or potable liquid.



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Indian Regulations

Observe applicable requirements under the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, Environment Protection Act 1986, and applicable State Pollution Control Board notifications. Assign waste code per actual process and local authority guidance.

SECTION 14 TRANSPORT INFORMATION

PARAMETER	UN / ADR (ROAD)	IMDG (SEA)	IATA (AIR)
UN Number	UN 3102	UN 3102	UN 3102
Proper Shipping Name	ORGANIC PEROXIDE TYPE D, SOLID — verify with supplier for specific formulation/type	ORGANIC PEROXIDE TYPE D, SOLID — verify with supplier	ORGANIC PEROXIDE TYPE D, SOLID — verify with supplier
Class	5.2 (Organic Peroxide)	5.2 (Organic Peroxide)	5.2 (Organic Peroxide)
Packing Group	Not applicable (Class 5.2)	Not applicable (Class 5.2)	Not applicable (Class 5.2)
Marine Pollutant	Verify (aquatic hazard present — likely Yes)	Yes — verify under IMDG criteria	N/A

Classification as UN 3102 (Type D, solid) is based on benzoyl peroxide not phlegmatised or in commercially available powder form. Phlegmatised or wetted grades may differ (e.g. UN 3104, 3106). Always verify the correct UN number and proper shipping name with the supplier COA and current IMDG/ADR/IATA tables before shipment. Packaging: UN-certified container appropriate to the product. Drum must be labelled with Class 5.2 placard, UN number, and product name.

SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP

Observe REACH (EC 1907/2006) and CLP (EC 1272/2008) requirements. Benzoyl peroxide is listed on ECHA's C&L Inventory. Classified and labelled per Section 2 GHS/CLP classification. Check SVHC list and authorisation requirements where applicable.

OSHA (USA)

Prepared in OSHA HCS / HazCom 2012 aligned 16-section SDS format. Verify TSCA inventory status before US import or distribution.

India

Observe applicable requirements: Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 (as amended); Hazardous Wastes (Management, Handling and Transboundary Movement) Rules; Explosives Act (organic peroxides may fall under



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Schedule); Factory Act / state rules; applicable SPCB/CPCB notifications.

Other Jurisdictions

Canada: Classify and label under WHMIS 2015/HPR; bilingual SDS/label required for Canadian sale. China: Observe GB/T SDS and classification requirements. Australia: Check AICS inventory before import. GCC/Middle East: Apply GHS-aligned local requirements. Regulatory scope is subject to change — confirm current requirements before market placement.

SECTION 16 OTHER INFORMATION

Prepared By	Supreme Petro Chemicals — Technical Department
SDS Standard	UN GHS Rev.11 (2025); OSHA HCS/HazCom; EU CLP/REACH Annex II; Canada WHMIS/HPR — 16-section format
Revision Date	24 June 2026
Version	3.0 (supersedes prior issues)
Disclaimer	Information is given in good faith and believed accurate at issue. It does not constitute a specification or guarantee; the user is responsible for safe use, handling and compliance.

FULL TEXT OF H-STATEMENTS

- H241 — Heating may cause a fire or explosion
- H242 — Heating may cause a fire
- H317 — May cause an allergic skin reaction
- H319 — Causes serious eye irritation
- H335 — May cause respiratory irritation
- H400 — Very toxic to aquatic life
- H410 — Very toxic to aquatic life with long lasting effects