

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product Name: RT-BPO-501L (Powder Hardener (BPO))
Revision Date: May 29, 2025
Version: 1.0
Manufacturer's Name: Res-Tek, Inc.
Address: 110 Riverside Drive SW Cartersville, GA, 30120 United States of America
Emergency Phone: CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted).
Information Phone Number: 1-888-737-8351 / 1-770-427-4034
Product/Recommended Uses: Industrial Curing Agent

Date Printed: May 29, 2025
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SECTION 2) HAZARDS IDENTIFICATION

Classification

Organic peroxides Type D

Eye Irritation - Category 2B

Skin Sensitizer - Category 1

Acute aquatic toxicity - Category 1

Chronic aquatic toxicity - Category 1

Safety data sheet prepared in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Pictograms



Signal Word

Danger

Hazardous Statements - Health

H320 - Causes eye irritation

H317 - May cause an allergic skin reaction

Hazardous Statements - Physical

H242 - Heating may cause a fire

Hazardous Statements - Environmental

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P273 - Avoid release to the environment.

P264 - Wash thoroughly after handling.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P234 - Keep only in original packaging.

P235 - Keep cool.

P240 - Ground/bond container and receiving equipment.

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P272 - Contaminated work clothing must not be allowed out of the workplace.

Precautionary Statements - Response

P391 - Collect spillage.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical advice/attention.

P370 + P378 - In case of fire: Use carbon-di oxide, alcohol foam, water spray or dry chemical to extinguish.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or a rash occurs: Get medical advice/attention.

P321 - Specific treatment (see First-Aid on this label).

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

Precautionary Statements - Storage

P403 - Store in a well-ventilated place.

P410 - Protect from sunlight.

P411 - Store at temperatures not exceeding {P411-TC}/{P411-TF}.

P420 - Store separately.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000094-36-0	BENZOYL PEROXIDE	48% - 52%
0000094-49-5	ETHYLENE DIBENZOATE	48% - 52%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

Immediately call a POISON CENTER or doctor.

Specific treatment is urgent (see First-Aid on this label).

If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED).

Eye Contact

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open.

Remove contact lenses, if present and easy to do.

Take care not to rinse contaminated water into the unaffected eye or onto the face.

Continue rinsing for a duration of 30 minutes or until medical aid is available.

Immediately call a POISON CENTER or doctor.

Avoid direct contact. Wear chemical protective gloves, if necessary.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

Rinse skin with lukewarm, gently flowing water/shower for a duration of 30 minutes or until medical aid is available.

Immediately call a POISON CENTER or doctor.

Wash contaminated clothing before re-use or discard.

Ingestion

Rinse mouth.

If you feel unwell/If concerned:

Get medical advice/attention.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Large Fire : Water spray, fog or alcohol-resistant foam. Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards Arising from the Chemical

Fire will produce irritating gases. Runoff may pollute waterways Containers may explode in fire. May be ignited by heat, sparks or flames. May burn rapidly with flare-burning effect. May explode from heat, shock, friction or contamination. Runoff may create a fire or explosion hazard. May ignite combustibles (wood, paper, oil, clothing, etc.)

Precautions for Firefighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Equipment

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Protective Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Avoid breathing dust. Do not get on skin, eyes or clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material and water from clean-up/firefighting from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Wet down with water and dike for later disposal.

Methods and Materials for Containment and Cleaning up

Avoid raising dust. Safely collect powdered material and deposit in sealed containers for disposal. Ventilate and wash area after clean-up is complete. Pick up with inert, damp, non-combustible material using clean, non-sparking tools and place into loosely covered plastic containers for later disposal.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use. Avoid breathing dust. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. All containers must be properly labelled. Eyewash stations and showers should be available in areas where this material is used and stored. Do not get in eyes, on skin, or on clothing.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Report ventilation failures immediately.

Storage Room Requirements

Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage.

Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous. Segregate from other hazard classes and store in a cool, dry, well ventilated area, away from sources of ignition and incompatibilities. Protect containers from moisture and against banging or other physical damage when storing, transferring, or using them. Take precautionary measures against electrostatic discharge. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Water contamination should be avoided.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear Dust-proof goggles with side shields

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)
BENZOYL PEROXIDE	1			5				5
Chemical Name	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	OSHA Skin designation	CAN_ONsmg	CAN_ONtmg
BENZOYL PEROXIDE			A4	URT & skin irr	A4			
Chemical Name	CAN_ONsppm	CAN_ONtpm	CAN_QCVEMP ppm - CANADA_QUE BEC VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_p pm	CAN_QCVEMP mg - CANADA_QUE BEC VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_m g	CAN_QCVECD ppm - CANADA_QUE BEC VALEUR D'EXPOSITION DE COURTE DURÉE_ppm	CAN_QCVECD mg - CANADA_QUE BEC VALEUR D'EXPOSITION DE COURTE DURÉE_mg	CAN_ALtpm	CAN_ALtmg
BENZOYL PEROXIDE				5				5
Chemical Name	CAN_ALsmg	CAN_AL_Notation	CANtpm	CANtmg	CANsppm	CANsmg	CAN_AL_Carcinogen	CAN_ALsppm
BENZOYL PEROXIDE		3: Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.		5		10		
Chemical Name	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)	NIOSH STEL (mg/m3)	NIOSH STEL (ppm)	NIOSH Carcinogen			
BENZOYL PEROXIDE	5							

A4 - Not Classifiable as a Human Carcinogen, irr - Irritation, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Powder.
Color.	White.
Odor	Faint.
Odor Threshold (ppm)	Not available.
pH (Value)	Not available.
Melting Point (°C) / Freezing Point (°C)	Decomposes below the melting point
Boiling point/boiling range (°C):	Decomposes below the boiling point
Flash Point (°C)	Above the SADT value.
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive Limit Ranges	No data available.
Vapour pressure (mmHg)	No data available.
Vapour Density (Air=1)	No data available.
Density (g/ml)	No data available.
Specific Gravity	No data available.
Solubility (Water)	Insoluble at 20°C.
Solubility (Other)	No data available.
Partition Coefficient (n-Octanol/water)	No data available.
Decomposition Temperature (°C)	SADT - (Self accelerating decomposition temperature) is the lowest. temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.
Self-Accelerating decomposition temperature (SADT)	55 °C (131°F). Method: UN-Test H.4 SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self accelerating decomposition reaction.
Dynamic Viscosity (cPs @ 25°C)	12 – 15.
Explosive properties	Not explosive.
Oxidizing properties	The substance or mixture is not classified as oxidizing. Organic peroxide.
Active Oxygen content	3.3%
Organic peroxides	50%.
Other information	None available.

SECTION 10) STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions/Polymerization

May decompose explosively when heated or involved in a fire. May explode from friction, heat or contamination.

Conditions To Avoid

Avoid heat, sparks, flame, high temperature and contact with incompatible materials. Avoid high temperatures and product contamination.

Incompatible Materials

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11) TOXICOLOGICAL INFORMATION

Acute Toxicity

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapour) exposure to this mixture is >20 mg/l

The Acute Toxicity Estimate (ATE) for an inhalation (dust and mist) exposure to this mixture is >5 mg/l

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

May cause an allergic skin reaction

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Causes eye irritation

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Chronic Exposure

Based on available data, the classification criteria are not met.

Potential Health Effects - Miscellaneous

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

SECTION 12) ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14) TRANSPORT INFORMATION

Display Order	U.S. DOT Information	IMDG Information	IATA Information
UN Number:	UN3106	UN3106	UN3106
UN proper shipping name:	Organic peroxide type D, solid	Organic peroxide type D, solid	Organic peroxide type D, solid
Transport Hazard class(es)	5.2	5.2	5.2
Packing group	II	II	II
Hazardous substance (RQ)	No Data Available	No Data Available	No Data Available
Environmental hazards	No Data Available	No Data Available	No Data Available
Special precautions for user	No Data Available	No Data Available	No Data Available
Transport in bulk according to Annex II of MARPOL and the IBC code	No Data Available	No Data Available	No Data Available

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000094-36-0	BENZOYL PEROXIDE	48% - 52%	SARA313, Canada_NPRI, DSL - Domestic Substance List, SARA312, TSCA - Toxic Substances Control Act (TSCA), PA_HAZ - Pennsylvania Hazardous Substance List, NJ_RightToKnow_HazSubList - New Jersey Right to Know Hazardous Substance List (RTKHSL), NJ_RightToKnow_SpecialHealthHazard_SubList - New Jersey Right To Know Special Health Hazard Substance List, TSCA_CDR - TSCA - Chemical Data Reporting (CDR) Rule, TSCATS - TOXIC SUBSTANCES CONTROL ACT TEST SUBMISSIONS
0000094-49-5	ETHYLENE DIBENZOATE	48% - 52%	SARA312, TSCA - Toxic Substances Control Act (TSCA), TSCA12B - Toxic Substances Control Act 12B, TSCA_SNUR - TSCA Significant New Use Rules (SNURs), TSCA_PMN - TSCA Pre-manufacture Notices (PMNs)

SECTION 16) OTHER INFORMATION

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

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