

Section 1: Identification

Product Name Benzoyl Peroxide 70%
Commercial Name Not available.
Product Use Pharmaceutical intermediate
Restrictions On Use Not available.

Product Code 50-3085

Company PCCA
 9901 South Wilcrest
 Houston, TX 77099
 Phone: 1-800-331-2498
 Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Organic peroxides, Type C Eye irritation, Category 2B Skin sensitization, Category 1 Acute aquatic toxicity,
CFR 1910.1200 Category 1 Chronic aquatic toxicity, Category 1

Signal Word DANGER

Hazard Statement(s) Heating may cause a fire. May cause an allergic reaction. Causes eye irritation. Very toxic to aquatic life with long lasting effects.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P220 Keep/Store away from clothing/combustible materials. P234 Keep only in original container. P235 Keep cool. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P337 + P313 If eye irritation persists: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or caron dioxide to extinguish. P391 Collect spillage.

Storage

P410 Protect from sunlight. P420 Store away from other materials.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulation

Section 3: Composition/Information on Ingredients

Substance/Mixture Mixture
Components 1) Benzoyl peroxide and water
% By Weight >=73 - <= 77 and <=25
CAS# 94-36-0 and 7732-18-
Molecular Weight 242.2 g/mol
Chemical Formula C14 H10 O4
Synonym(s) dibenzoyl peroxide, benzoic acid peroxide

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
1) Benzoyl peroxide	94-36-0	73-77	TWA (mg/m3): 5	ORAL (LD50): Acute: 7710 mg/kg [Rat].
Water	7732-18-5	25		

Section 4: First-Aid Measures

Inhalation	If inhaled, remove victim to fresh air.
Skin Contact	In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Eye Contact	Immediately flush eye(s) with plenty of water. Get medical attention.
Ingestion	If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.
Symptoms/Effects	
Acute	Not available
Delayed	Not available.
Immediate Medical Attention	Not available.

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Water spray, Foam, Dry chemical

Unsuitable Extinguishing Media

High volume water jet

Products of Combustion

Not available.

Firefighters Special Equipment and Precautions

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent). Do not use a solid stream of water. A solid stream of water can cause a dust explosion. Fight fire with large amounts of water from a safe distance. Cool closed containers exposed to fire with water spray. Closed containers of this material may explode when subjected to heat from surrounding fire. After a fire, wait until the material has cooled to room temperature before initiating clean-up activities. Do not allow run-off from fire fighting to enter drains or water courses. Fire fighting equipment should be thoroughly decontaminated after use. Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables. Note: Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container. Contact with incompatible materials or exposure to temperatures exceeding the SADT may result in a self accelerating decomposition reaction with release of flammable vapors which may autoignite. When burned, the following hazardous products of combustion can occur: Carbon oxides Hazardous organic compounds

Section 6: Accidental Release Measures

Personal precautions, Emergency procedures, Methods and materials for containment/clean-up: Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid dust formation and dispersal of dust in the air. Wet down (dampen) the spilled material with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Implement workplace practices such that dusts are not allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Section 7: Handling and Storage

General information on handling: Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite. Avoid breathing dust. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Keep away from heat, sparks and flames. Dry material is shock sensitive and can decompose violently. No smoking. Use only with adequate ventilation. Wash thoroughly after handling. Prevent product contamination. Keep container tightly closed and away from combustible materials. Keep only in the original container. Avoid creating dust in handling, transfer or clean up. Prevent dust accumulation. Implement routine housekeeping practices to ensure that dusts do not accumulate on surfaces. Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Container hazardous when empty. Follow label warnings even after container is emptied. **RESIDUAL DUSTS MAY EXPLODE ON IGNITION. DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.** Do not reuse container as it may retain hazardous product residue. Improper disposal or reuse of this container may be dangerous and/or illegal. Emptied container retains product residue. Storage: General information on storage conditions: Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Outside or detached storage is preferred. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Store out of direct sunlight in a cool well-ventilated place. Store in original container. Store away from combustibles and materials to avoid. Refer also to National Fire Protection Association (NFPA) Code 400, Hazardous Materials Code. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes, which pertain to the specific local conditions of storage and use, including NFPA 654. Storage stability – Remarks: Minimize exposure to ambient temperatures. Keep away from direct sunlight. Shock sensitive material; do NOT drop or drag containers. Follow the recommended storage temperatures provided in this Section in order to maintain stability and oxygen content.

Section 8: Exposure Controls/Personal Protection**Exposure Limits**

US. ACGIH Threshold Limit Values: Time weighted average 5 mg/m³ US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000): PEL: 5 mg/m³

Engineering Controls

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Check that all dust control equipment such as local exhaust ventilation, material transport systems, and air-material separation devices involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Isolation devices may be appropriate to prevent propagation from one unit to another. Ensure that dust-handling systems are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Consult ACGIH ventilation manual, NFPA Standard 91 and NFPA Standard 654 for design of exhaust system and safe handling.

Personal Protection

Respiratory protection: Avoid breathing dust. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134. Skin protection: Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling. Eye protection: Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye flushing equipment immediately available.

Section 9: Physical and Chemical Properties

Appearance	White powder.		
Odor	Slightly benzaldehyde -like		
Odor Threshold	Not available.		
Melting Point	217 - 223 °F (103 - 106 °C)	pH	Not available.
Freezing Point	Not available.	Vapor Pressure	Not available.
Boiling Point/Range	Not available.	Vapor Density	Not available.
Decomposition temperature	160 °F (71 °C) 25 pound con	Viscosity	Not available.
Partition Coefficient: n-octanol/water	Not available.	Evaporation Rate	Not available.
Flash Point	Not available.	Autoignition temperature	Not available.
Flammability	Not available.	Flammability or Explosive Limits:	
		Lower	Not available.
		Upper	Not available.
Solubility(ies)	Negligible		
Other	Bulk Density = 670 - 750 kg/m3 Molecular weight: 242.2 g/mol Self-Accelerating Decomposition Temperature (SADT): 160 °F (71 °C) 25 pound container Active oxygen content: 4.96 %		

Section 10: Stability and Reactivity

Reactivity	Not available.
Chemical Stability	This material is chemically unstable and should only be handled under specified conditions.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite.
Incompatible Materials	Strong acids Strong bases Strong oxidizing agents Reducing agents Amines Accelerators Friedel - Crafts reaction catalyst Brass Copper Iron
Hazardous Decomposition Products	Carbon oxides Hazardous organic compounds

Section 11: Toxicological Information

RTECS	Not available.
Acute Toxicity	Oral: Practically nontoxic. (rat) LD0 >= 5,000 mg/kg. (78 %) Inhalation: Practically nontoxic. (rat) 4 h LC0 = 24 mg/l. (78 %) (aerosol) Skin Irritation: Not irritating. (rabbit) Irritation Index: 0 / 8. (4 h) (78 %) Eye Irritation: Causes eye irritation. (rabbit) (78 %)
Skin Corrosion/Irritation	May cause allergic skin reaction.
Serious Eye Damage/Irritation	Not available.
Respiratory or Skin Sensitization	Not available.
Germ Cell Mutagenicity	Not available.
Carcinogenicity	Not available.

Reproductive Toxicity

Not available.

Routes of Entry

Oral. Inhalation. Eye.

Symptoms Related to Exposure

Not available.

Potential Health Effects

Throat: irritating. (dust) (based on reports of occupational exposure to workers) Nose: irritating. (dust) (based on reports of occupational exposure to workers) Skin allergy was observed. (repeated or prolonged exposure) (studied using human volunteers)

Target Organ(s) Not available.**Section 12: Ecological Information****Ecotoxicity**

Aquatic toxicity data: Very toxic. Oncorhynchus mykiss (rainbow trout) 96 h LC50 = 0.0602 mg/l Aquatic invertebrates: Very toxic. Daphnia magna (Water flea) 48 h EC50 (Immobilization) = 0.110 mg/l Algae: Very toxic. Pseudokirchneriella subcapitata (green algae) 72 h ErC50 (biomass) = 0.07 mg/l Microorganisms: Respiration inhibition / Activated sludge 30 min EC50 = 35 mg/l

Persistence and Degradability

Not available.

Bioaccumulative Potential

Not available.

Mobility in Soil

Not available.

Other Adverse Effects

Not available.

Section 13: Disposal Considerations**Waste Disposal**

Take appropriate measures to prevent release to the environment. Disposal via incineration is recommended. If recycling is not an option, incinerate or dispose of in accordance with federal, state, and local regulations. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Disposal of Container

Not available.

Other Considerations

Not available.

Section 14: Transport Information**DOT Classification**

US Department of Transportation (DOT) UN Number : 3104 Proper shipping name : Organic peroxide type C, solid Technical name : (Dibenzoyl peroxide, <= 77%) Class : 5.2 Packaging group : II Marine pollutant : yes

Section 15: Regulatory Information**Regulations**

EU. EINECS EINECS Conforms to United States TSCA Inventory TSCA The components of this product are all on the TSCA Inventory. Canadian Domestic Substances List (DSL) DSL All components of this product are on the Canadian DSL China. Inventory of Existing Chemical Substances in China (IECSC) IECSC (CN) Conforms to Japan. ENCS - Existing and New Chemical Substances Inventory ENCS (JP) Conforms to Japan. ISHL - Inventory of Chemical Substances ISHL (JP) Conforms to Korea. Korean Existing Chemicals Inventory (KECI) KECI (KR) Conforms to Philippines Inventory of Chemicals and Chemical Substances (PICCS) PICCS (PH) Conforms to Australia Inventory of Chemical Substances (AICS) AICS Conforms to United States – Federal Regulations SARA Title III – Section 302 Extremely Hazardous Chemicals: The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations. SARA Title III - Section 311/312 Hazard Categories: Acute Health Hazard, Fire Hazard, Reactivity Hazard SARA Title III – Section 313 Toxic Chemicals: The following components are subject to reporting levels established by SARA Title III, Section 313: Chemical Name CAS-No. De minimis concentration Reportable threshold: Dibenzoyl peroxide 94-36-0 1.0 % 25000 lbs (Manufacturing and processing) 10000 lbs (Otherwise used (non- manufacturing/processing)) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ): Chemical Name CAS-No. Reportable quantity Benzoic acid 65-85-0 5000 lbs United States – State Regulations New Jersey Right to Know Chemical Name CAS-No. Dibenzoyl peroxide 94-36-0 New Jersey Right to Know – Special Health Hazard Substance(s) Chemical Name CAS-No. Dibenzoyl peroxide 94-36-0 Pennsylvania Right to Know Chemical Name CAS-No. Dibenzoyl peroxide 94-36-0 Water 7732-18-5 Pennsylvania Right to Know – Environmentally Hazardous Substance(s) Chemical Name CAS-No. Dibenzoyl peroxide 94-36-0 California Prop. 65 This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

Other

Not available.

Section 16: Other Information

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