



TCI AMERICA

SAFETY DATA SHEET

Page 1 of 6

Revision number: 3
Revision date: 02/02/2016

1. IDENTIFICATION

Product name: Benzoyl Peroxide (wetted with ca. 25% Water)
Product code: B3152

Product use: For laboratory research purposes.
Restrictions on use: Not for drug or household use.

Company:
TCI America
9211 N. Harborside Street
Portland, OR 97203 U.S.A.
Telephone:
+1-800-423-8616 / +1-503-283-1681
Fax:
+1-888-520-1075 / +1-503-283-1987
e-mail:
sales-US@TCIchemicals.com
www.TCIchemicals.com

Emergency telephone number:
Chemical Emergencies:
TCI America (8:00am - 5:00pm) PST
+1-503-286-7624
Transportation Emergencies:
Chemtrec 24-Hour
+1-800-424-9300 (U.S.A.)
+1-703-527-3887 (International)
Responsible department:
TCI America
Environmental Health Safety and Security
+1- 503-286-7624

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Eye Damage/Irritation [Category 2A]
Sensitization - Skin [Category 1]
Specific Target Organ Toxicity (Single Exposure) [Category 3]
Organic Peroxides - Type C
Aquatic Hazard (Acute) [Category 1]

Signal word: Danger!

Hazard Statement(s): Causes serious eye irritation
Heating may cause a fire
May cause an allergic skin reaction
Very toxic to aquatic life
May cause respiratory irritation.

Pictogram(s) or Symbol(s):



Precautionary Statement(s):
[Prevention]

Wash hands and face thoroughly after handling. Wear eye and face protection. Avoid breathing dusts or mists. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. Use only outdoors or in a well-ventilated area. Keep away from heat, sparks, open flames or other hot surfaces. - No smoking. Store away from clothing and other combustible materials. Keep only in original container. Wear protective gloves, eye protection and face protection.

[Response]

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

[Storage]

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store at temperatures not exceeding .? °C/ .?1 °F. Keep cool. Protect from sunlight. Store away from other materials.

[Disposal]

Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

Hazards not otherwise classified: [HNOC] Causes mild skin irritation.

2. HAZARD(S) IDENTIFICATION**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance/Mixture:	Mixture
Components:	Benzoyl Peroxide (wetted with ca. 25% Water)
Percent:	>75.0%(T)
CAS Number:	94-36-0
Molecular Weight:	242.23
Chemical Formula:	C ₁₄ H ₁₀ O ₄
Synonyms:	Dibenzoyl Peroxide (wetted with ca. 25% Water) , BPO (wetted with ca. 25% Water)

4. FIRST-AID MEASURES

Inhalation:	May cause coughing, difficult breathing and nausea. Call emergency medical service. Effects of exposure (inhalation) to substance may be delayed. Inhalation of vapors or contact with substance will result in contamination and potential harmful effects. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Skin contact:	Call a poison center or doctor if you feel unwell. Effects of exposure (skin contact) to substance may be delayed. Remove and wash contaminated clothing before re-use. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Eye contact:	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Contact with material may irritate or burn eyes. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Ingestion:	Do not induce vomiting with out medical advice. Effects of exposure (ingestion) to substance may be delayed. If swallowed, seek medical advice immediately and show the container or label. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Symptoms/effects:	
Acute:	Redness.
Delayed:	May cause skin sensitization. May have effects on the respiratory tract.
Immediate medical attention:	CAUTION: Victim may be a source of contamination. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Water spray or fog is preferred; if water not available use dry chemical, CO ₂ , or regular foam. Consult with local fire authorities before attempting large scale fire fighting operations.
Specific hazards arising from the chemical	
Hazardous combustion products:	These products include: Carbon oxides
Other specific hazards:	Closed containers may explode from heat of a fire.

Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. These substances will accelerate burning when involved in a fire. May ignite combustibles (wood, paper, oil, clothing, etc.). Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Move containers from fire area if you can do it without risk.

Special protective equipment for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

6. ACCIDENTAL RELEASE MEASURES

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Use spark-proof tools and explosion-proof equipment. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Personal protective equipment:	Wear eye protection (splash goggles) and face protection (full length face shield). Wear protective clothing (chemical resistant suit and chemical resistant boots). Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).
Emergency procedures:	Keep combustibles (wood, paper, oil, etc.) away from spilled materials. Prevent dust cloud. Do not clean-up or dispose except under supervision of a specialist. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in the immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Keep away from combustible materials, reducing agents, acids, metal powders, light, heat, and sources of ignition. Keep substance damp using water spray. Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal. Do not clean-up or dispose except under supervision of a specialist. Dike far ahead of spill; use dry sand to contain the flow of material. Ventilate the area.

Environmental precautions:

Keep away from living quarters. Environmental hazard. Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE

Precautions for safe handling:	Avoid inhalation of vapor or mist. Avoid contact with skin and eyes. May catch fire in contact with combustible materials. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.
Conditions for safe storage:	Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from combustible materials. Keep away from sources of ignition. Store and use away from heat, sparks, open flame, or any other ignition source. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store in refrigerator.
Storage incompatibilities:	Combustible substances, Reducing Agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure limits:**

ACGIH TLV (TWA): 5 mg/m³

OSHA PEL (TWA): 5 mg/m³

Appropriate engineering controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

Respiratory protection:	Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
Hand protection:	Wear protective gloves.
Eye protection:	Safety glasses.
Skin and body protection:	Lab coat.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C):	Solid
Form:	Crystal - Powder
Color:	White - Very pale yellow
Odor:	Odorless
Odor threshold:	No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Melting point/freezing point:	105°C (dec.) (221°F)	pH:	No data available
Boiling point/range:	No data available	Vapor pressure:	0.1kPa/20°C
Decomposition temperature:	No data available	Vapor density:	No data available
Relative density:	No data available	Dynamic Viscosity:	No data available
Kinematic Viscosity:	No data available		
Partition coefficient: n-octanol/water (log P_{ow})	3.46	Evaporation rate: (Butyl Acetate = 1)	No data available
Flash point:	No data available	Autoignition temperature:	80°C (176°F)
Flammability (solid, gas):	No data available	Flammability or explosive limits:	
		Lower:	No data available
		Upper:	No data available

Solubility(ies):

Water: Insoluble (9.10mg/L, 25°C)

10. STABILITY AND REACTIVITY

Reactivity:	May form explosive peroxides. Contact with combustible material may cause fire.
Chemical Stability:	Heat sensitive.
Possibility of Hazardous Reactions:	No hazardous reactivity has been reported.
Conditions to avoid:	Heat sensitive.
Incompatible materials:	Oxidizing agents
Hazardous Decomposition Products:	No data available

11. TOXICOLOGICAL INFORMATION

RTECS Number: DM8575000

Acute Toxicity:

orl-rat LD50:6400 mg/kg

skn-mam LD50:>1 g/kg

ipr-rat LD50:372.8 mg/kg

Skin corrosion/irritation:

skn-hmn 5%/8W-I SEV

Serious eye damage/irritation:

eye-rbt 500 mg/24H MLD

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

dnd-hmn-oth 100 umol/L

dni-hmn-oth 56 umol/L

dns-rat-lvr 100 pmol/L

Carcinogenicity:

skn-mus TDLo:64000 mg/kg/40W-I

IARC: Group 3 (Not classifiable as carcinogenic to humans).**NTP:** No data available**OSHA:** No data available**Reproductive toxicity:**

No data available

Routes of Exposure:

Inhalation, Eye contact, Ingestion, Skin contact.

Symptoms related to exposure:

Eye contact may result in redness or pain. Skin contact may result in sensitization. Readily absorbed through skin. Inhalation causes irritation of the lungs and respiratory system. Skin contact may result in redness, pain or dry skin.

Potential Health Effects:

Skin and eye contact may result in irritation. Inhalation causes irritation of the lungs and respiratory system.

Target organ(s):

May cause respiratory irritation.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Fish:	96h LC50:0.24 mg/L (Oryzias latipes)
Crustacea:	48h EC50:0.07 mg/L (Daphnia magna)
Algae:	No data available

Persistence and degradability:	84 % (by BOD), 100 % (by HPLC), 88 % (by TOC)
Bioaccumulative potential (BCF):	250
Mobility in soil:	No data available
Partition coefficient: n-octanol/water (log P_{ow})	3.46
Soil adsorption (K_{oc}):	1800
Henry's Law: constant (PaM³/mol)	1216

13. DISPOSAL CONSIDERATIONS

Disposal of product:	Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.
Disposal of container:	Dispose of as unused product. Do not re-use empty containers.
Other considerations:	Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION**DOT (US)**

UN number:	Proper Shipping Name:	Class or Division:	Packing Group:
UN3104	Organic peroxide type C, solid	5.2 Organic peroxide	II

IATA

UN number:	Proper Shipping Name:	Class or Division:
UN3104	Organic peroxide type C, solid	5.2 Organic peroxide

IMDG

UN number:	Proper Shipping Name:	Class or Division:
UN3104	Organic peroxide type C, solid	5.2 Organic peroxide

EmS number:	F-J, S-R
--------------------	----------

15. REGULATORY INFORMATION**Toxic Substance Control Act (TSCA 8b.):**

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations**CERCLA Hazardous substance and Reportable Quantity:**

SARA 313:	Listed
SARA 302:	Not Listed

State Regulations**State Right-to-Know**

Massachusetts	Listed
New Jersey	Listed
Pennsylvania	Listed
California Proposition 65:	Not Listed

Other Information

15. REGULATORY INFORMATION**NFPA Rating:**

Health: 3
Flammability: 0
Instability: 3

HMIS Classification:

Health: 3
Flammability: 0
Physical: 3

International Inventories**WHMIS hazard class:**

D2B: Materials causing other toxic effects. (Toxic)

EC-No:

202-327-6

16. OTHER INFORMATION**Revision date:** 02/02/2016**Revision number:** 3

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.