



TCI AMERICA

SAFETY DATA SHEET

Revision number: 1
Revision date: 07/06/2018

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
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Transportation Emergencies:
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Responsible department:
TCI America
Environmental Health Safety and Security
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2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Eye Damage/Irritation [Category 2A]
WHMIS 2015: 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): Heating may cause a fire
Causes serious eye irritation
May cause an allergic skin reaction
Very toxic to aquatic life
May cause respiratory irritation.

Pictogram(s) or Symbol(s):



Precautionary Statement(s):

[Prevention]

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

[Response]

If on skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice or 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. 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. Collect spillage.

[Storage]

Store away from other materials. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

[Disposal]

Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40 CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

Hazards not otherwise classified:
[HNOC]

Causes mild skin irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

4. FIRST-AID MEASURES**Description of first aid measures**

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| Inhalation: | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. |
| Skin contact: | Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. |
| Eye contact: | 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/attention. |
| Ingestion: | Get medical advice/attention if you feel unwell. Rinse mouth. |

Symptoms/effects:

| | |
|-----------------|--|
| Acute: | Redness. |
| Delayed: | May cause skin sensitization. May have effects on the respiratory tract. |

Indication of any immediate medical attention:

Not available.

Notes to physician:

No data available

5. FIRE-FIGHTING MEASURES

| | |
|--|--|
| Suitable extinguishing media: | Dry chemical, foam, water spray, carbon dioxide. |
| Specific hazards arising from the chemical: | Explosion risk in case of fire. Fight fire remotely due to the risk of explosion. |
| Hazardous combustion products: | These products include: Carbon oxides |
| Other specific hazards: | Closed containers may explode from heat of a fire. |
| Advice for firefighters: | Wear self-contained breathing apparatus if possible. Combat fire from a sheltered position. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions, protective equipment and emergency procedures: | Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc. |
| Environmental precautions: | Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned. |
| Methods and materials for containment and cleaning up: | Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. |
| Prevention of secondary hazards: | Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment. |

7. HANDLING AND STORAGE

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|---|--|
| Precautions for safe handling: | Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Keep away from flames and hot surfaces. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Do not subject to grinding/shock/friction. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. |
| Conditions for safe storage, including any incompatibilities | |
| Storage conditions: | Keep container tightly closed. Store in a refrigerator. Store locked up. Be sure not to give the container unexpected impacts, such as falling down or falling off. Keep wetted with water for desensitized. Store away from other materials. Heat-sensitive |
| Packaging material: | Comply with laws. Keep only in original container. |

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

| | |
|------------------------|---------------------|
| ACGIH TLV(TWA): | 5 mg/m ³ |
| OSHA PEL(TWA): | 5 mg/m ³ |

Appropriate engineering controls: Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

| | |
|----------------------------------|---|
| Respiratory protection: | Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations. |
| Hand protection: | Impervious gloves. |
| Eye protection: | Safety goggles. A face-shield, if the situation requires. |
| Skin and body protection: | Impervious protective clothing. Protective boots, if the situation requires. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|--------------------------------------|----------------------------|---|--------------------|
| Physical state (20°C): | Solid | | |
| Form: | Crystal - Powder | | |
| Colour: | White - Very pale yellow | | |
| Odour: | Odorless | | |
| Odor threshold: | No data available | | |
| Odour threshold: | No data available | | |
| Melting point/freezing point: | 105°C (dec.) (221°F) | pH: | No data available |
| Boiling point/range: | No data available | Vapour pressure: | No data available. |
| Decomposition temperature: | No data available | Vapour density: | No data available |
| Relative density: | No data available | Dynamic Viscosity: | No data available |
| Kinematic viscosity: | No data available | | |
| Log Pow: | No data available | 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) | | |
| [Other solvents] | No data available | | |

10. STABILITY AND REACTIVITY

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|--|--|
| Reactivity: | No data available |
| Chemical stability: | Stable under proper conditions. |
| Possibility of hazardous reactions: | May explosively decompose on heating, shock, friction, etc. |
| Conditions to avoid: | Heat, Spark, Open flame, Shock, Friction, Light |
| Incompatible materials: | Oxidizing agents, Acids, Reducing agents, Metals, Combustibles, Alcohols, Amines |
| Hazardous decomposition products: | Carbon monoxide, carbon dioxide etc |

11. TOXICOLOGICAL INFORMATION**RTECS Number:** DM8575000**Acute Toxicity:**ori-rat LD50:6400 mg/kg
ipr-rat LD50:372.8 mg/kg

skn-mam LD50:>1 g/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
dns-rat-lvr 100 pmol/L

dni-hmn-oth 56 umol/L

Carcinogenicity:skn-mus TDL₀:64000 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

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 / degradability:**

84 % (by BOD) , 100 % (by HPLC) , 88 % (by TOC)

Bioaccumulative potential(BCF):

250

Mobility in soil**Log Pow:** 3.46
Soil adsorption (Koc): 1800
Henry's Law (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. Consult an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. 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: UN3104 | Proper Shipping Name: Organic peroxide type C, solid | Class or Division: 5.2 Organic peroxide | Packing Group: II |
|-----------------------------|--|---|-----------------------------|

IATA

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

IMDG

| | | |
|-----------------------------|--|---|
| UN number: UN3104 | Proper Shipping Name: Organic peroxide type C, solid | Class or Division: 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**NFPA Rating:**

| | |
|----------------------|---|
| Health: | 3 |
| Flammability: | 0 |
| Instability: | 3 |

HMIS Classification:

| | |
|----------------------|---|
| Health: | 3 |
| Flammability: | 0 |
| Physical: | 3 |

International Inventories

| | |
|--------------------|-----------|
| Canada: DSL | On DSL |
| EC-No: | 202-327-6 |

16. OTHER INFORMATION

Revision date: 07/06/2018

Revision number: 1

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.