

SAFETY DATA SHEET

Benzoyl Peroxide

1. IDENTIFICATION

Product Identifiers

Product Name: Benzoyl Peroxide
Other Names: Dibenzoyl peroxide [Benzoyl peroxide].
Product No.(s): Apart of Products: C023; C024; C025; C026; C613 & C618.
CAS No.: 94-36-0

Recommended use of the chemical and restriction on use:

Catalyst to harden resin.

Company Details:

ProSciTech Pty Ltd
 11 Carlton Street, Kirwan, Qld. 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am – 5:00pm, Monday to Friday (excluding Public Holidays)
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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Organic peroxides type B-F

Label Elements:



Flammable

Signal Word: Danger

Hazard Statement(s):

H242 Heating may cause a fire

Precautionary Statement(s):

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Manufacturer/supplier or competent authority to specify applicable ignition source(s).

P220: Keep/Store away from clothing/.../combustible materials.

P234: Keep only in original container.

P234: Keep only in original container.

P280: Wear face protection. Specify type of equipment.

P411+P235: Store at temperatures not exceeding ...°C/...°F. Keep Cool.

P410: Protect from sunlight.

P420: Store away from other materials.

P501: Dispose of contents/container to ... in accordance with local/regional/national/international regulations (to be specified)

Primary route(s) of entry:

Absorbed through skin. Eye contact. Inhalation. Ingestion.

Human Health

Inhalation: Extremely hazardous in case of inhalation.

Ingestion: Extremely hazardous in case of ingestion.

Eyes: Irritating to eyes.

Skin: Very hazardous in case of skin contact.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Name | Cas No. | Content | Classification |
|------------------|---------|---------|----------------------------|
| Benzoyl Peroxide | 94-36-0 | 100% | Organic peroxides type B-F |

4. FIRST AID MEASURES

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Skin Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention immediately.

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention immediately.

5. FIREFIGHTING MEASURES

Suitable extinguishing equipment

ALL FIRES:

Carbon dioxide, dry chemical powder or appropriate foam. Oxidizing material. Do not use water jet. Use flooding quantities of water. Avoid contact with organic materials.

HAZCHEM: 2WE

Special protective equipment and precautions for fire fighters:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Other Information:

Emits toxic fumes under fire conditions – carbon oxides (CO and CO₂). Risks of explosion of the product in presence of static discharge: Not available. Explosive in presence of heat. Slightly explosive in presence of shocks, of combustible materials.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear appropriate protective equipment.

Environmental precautions:

Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Methods and materials for containment and clean up:

For a small spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

For a large spill: Oxidizing material. Organic peroxide. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substances damp with water spray. Do not use metal tools or equipment. Do not touch spilled material. Use water spray to reduce vapours. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. HANDLING AND STORAGE

Precautions for safe handling:

Keep locked up. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Keep away from direct sunlight or strong incandescent light. Empty containers pose a fire risk; evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Avoid shock and friction. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as combustible materials, metals, acids, alkalis.

Conditions for safe storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles. Do not store above 40°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards

| Material | TWA ppm | TWA mg/m ³ | STEL ppm | STEL mg/m ³ |
|---------------------------------------|---------|-----------------------|----------|------------------------|
| Dibenzoyl peroxide [Benzoyl peroxide] | - | 5 | - | - |

Engineering controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal protective equipment:

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves (impervious).

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

| | |
|--------------------------------------|--|
| Appearance: | Clear to white granular solid. |
| Odour: | Not available. |
| pH: | Not available. |
| Vapour pressure: | Not available. |
| Vapour density: | Not available. |
| Boiling point: | Decomposition Temperature: 103°C. |
| Melting point: | 104.5°C. |
| Solubility: | Very slightly soluble in cold water. |
| Specific gravity or density: | 1.33 (Water = 1). |
| Flash Point: | Not available. |
| Flammable (explosive) limits: | Not available. |
| Ignition temperature: | 80°C. |
| Formula: | C ₁₄ -H ₁₀ -O ₄ |
| Molecular Weight: | 242.23 g/mole |

10. STABILITY AND REACTIVITY

Chemical stability:

Stable under normal conditions of use.

Possibility of hazardous reactions:

Will not occur.

Conditions to avoid:

Contact with heat, sources of flame and ignition. Contact with incompatible materials.

Incompatible materials:

Highly reactive with acids, alkalis. Reactive with combustible materials, metals. The product may undergo hazardous decomposition, condensation or polymerization, it may react violently with water to emit toxic gases or it may become self-reactive under conditions of shock or increase in temperature or pressure. Non-corrosive in presence of glass.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (irritant).

Acute effects:

Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Eye contact:

Inflammation of the eye is characterized by redness, watering, and itching.

Skin contact:

Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Ingestion

Extremely hazardous in case of ingestion.

Inhalation

Over-exposure by inhalation may cause respiratory irritation.

Chronic effects

Extremely hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

CARCINOGENIC EFFECTS: Classified None. By OSHA, None. By NIOSH. (Inadequate study.) By NTP.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Toxicity and irritation

Benzoyl peroxide: ORAL (LD50): Acute: 7710 mg/kg [Rat].

CARCINOGENIC EFFECTS: Classified None. By OSHA, None. By NIOSH. (Inadequate study.) By NTP.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity in water (LC50): 2 mg/l 96 hours [Guppy].

Persistence and degradability:

Not available.

Bioaccumulative potential:

Possibly hazardous short/long term degradation products are to be expected. The products of degradation are more toxic.

13. DISPOSAL CONSIDERATIONS

General information:

Dispose of in accordance with local, federal and state regulations.

14. TRANSPORT INFORMATION**ADG label required:****HAZCHEM:** 2WE

| | |
|---------------------------------------|---|
| UN number: | UN3104 |
| Proper shipping name: | Organic peroxide type C, solid (Benzoyl Peroxide) |
| Transport hazard class: | 5.2 |
| Packing group: | PG II |
| Environmental hazard: | No information available. |
| Special precautions for users: | Do not pack or ship with incompatible materials. |

15. REGULATORY INFORMATION**Poisons Schedule Number:** Schedule 5**16. OTHER INFORMATION****SDS preparation date:** 21 December 2012**Comments:**

List of Publications referenced when creating this SDS;

- Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB76:1997).
- IATA Dangerous Goods Regulations.
- Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)].
- Australia Standard for the Uniform Scheduling of Drugs and Poisons [SUSPD] (Australian Government Department of Health and Ageing).

This Safety Data Sheet (SDS) has been prepared in compliance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice 2011. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. The information published in this SDS has been compiled from the publications listed in Section 16: to the best of our ability and knowledge these publications are considered accurate. We reserve the right to revise Safety Data Sheets as new information becomes available. Copies may be made for non-profit use. ... End of SDS ...