

# Benzoyl Peroxide 98% (w/w)

# **SECTION 1. IDENTIFICATION**

Product Identifier Benzoyl Peroxide 98% (w/w)

Other Means of Identification

Benzoic acid peroxide

Product Code(s) BE6210

**Product Family** Organic Inorganic Solid **Recommended Use** Raw material for industry.

Restrictions on Use None known.

Supplier Identifier Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995

Emergency Phone No. CANUTEC CANADA, 613-996-6666, 24 Hours

**SDS No.** 1135

# **SECTION 2. HAZARD IDENTIFICATION**

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

#### Classification

Organic peroxide - Type B; Combustible dust - Category 1; Eye irritation - Category 2B; Skin sensitization - Category 1

#### **Label Elements**







Signal Word: Danger

Hazard Statement(s):

Heating may cause a fire or explosion. May cause an allergic skin reaction.

Causes eye irritation.

Precautionary Statement(s):

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Keep or store away from clothing and other combustible materials.

Keep only in original packaging.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash hands thoroughly after handling.

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

Avoid release to the environment.

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Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF ON SKIN: Wash with plenty of water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Storage:

Protect from sunlight.

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

#### Other Hazards

Toxic to aquatic life.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

#### Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Water	7732-18-5	1.5	Dihydrogen oxide	
Benzoyl peroxide	94-36-0	>= 98.5	Benzoic acid peroxide	

# **SECTION 4. FIRST-AID MEASURES**

### **First-aid Measures**

### Inhalation

Remove source of exposure or move to fresh air.

#### **Skin Contact**

Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. If skin irritation or a rash occurs, get medical advice or attention.

### **Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Contact physician immediately.

### Ingestion

Immediately call a Poison Centre or doctor. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting.

#### **First-aid Comments**

Some of the first-aid procedures recommended here require advanced first-aid training. Get medical advice or attention if you feel unwell or are concerned.

### Most Important Symptoms and Effects, Acute and Delayed

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Identification) and Section 11 (Toxicological Information) of this SDS.

### **Immediate Medical Attention and Special Treatment**

#### **Special Instructions**

General advice, consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

# **SECTION 5. FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

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### **Suitable Extinguishing Media**

Water spray, dry chemical, foam. Use water to keep non-leaking, fire-exposed containers cool.

### **Unsuitable Extinguishing Media**

Do not use a solid (straight) water stream as it may scatter and spread fire.

# Specific Hazards Arising from the Product

Combustible dust. Powder may form explosive dust-air mixture. Can accumulate static charge by flow, splashing or agitation. Heating may cause a fire. Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide.

# **Special Protective Equipment and Precautions for Fire-fighters**

Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Dust explosion hazard. Use water spray or fog to prevent dust formation and minimize risk of explosion. Move containers from fire area if it can be done without risk. Otherwise, use water in flooding quantities as a spray or fog to keep fire-exposed containers cool and absorb heat. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Dike and recover contaminated water for appropriate disposal. Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Remove or isolate incompatible materials as well as other hazardous materials.

#### **Environmental Precautions**

Do not allow into any sewer, on the ground or into any waterway.

# Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Use water fog or spray curtain to reduce amount of dust in air. Avoid dry sweeping. If necessary, use a dust suppressant such as water. Do not use compressed air for clean-up. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

# **SECTION 7. HANDLING AND STORAGE**

# **Precautions for Safe Handling**

Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Avoid release to the environment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Electrically bond and ground equipment. Ground clips must contact bare metal. Prevent accidental contact with incompatible chemicals. Keep containers tightly closed when not in use or empty. Wash hands thoroughly after handling this material.

### **Conditions for Safe Storage**

Store in an area that is: cool, well-ventilated, out of direct sunlight and away from heat and ignition sources, separate from incompatible materials (see Section 10: Stability and Reactivity). Electrically bond and ground containers. Ground clips must contact bare metal. Store in a closed container.

# SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# **Control Parameters**

	ACGIH 7	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA	
Benzoyl peroxide	5 mg/m3 A4		5 mg/m3				
Water	Not established		Not established				

A4 = Not classifiable as a human carcinogen.

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### **Appropriate Engineering Controls**

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use stringent control measures such as process enclosure to prevent product release into the workplace. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

#### **Individual Protection Measures**

### **Eye/Face Protection**

Wear chemical safety goggles and face shield when contact is possible.

#### **Skin Protection**

Wear chemical protective clothing e.g. gloves, aprons, boots.

No specific quidelines are available. Contact chemical manufacturer/supplier for advice.

# **Respiratory Protection**

Consult respiratory manufacturer to determine appropriate type of equipment for a given application. Wear a NIOSH approved powered air-purifying respirator with an appropriate cartridge.

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

# **Basic Physical and Chemical Properties**

Appearance White powder.

Odour Odourless

Odour Threshold Not available

pH Not available

Melting Point/Freezing Point Not available (melting); Not available (freezing)

Initial Boiling Point/RangeNot availableFlash PointNot availableEvaporation RateNot availableFlammability (solid, gas)Not available

Upper/Lower Flammability or

Explosive Limit

Not available (upper); Not available (lower)

Vapour PressureNot availableVapour Density (air = 1)Not availableRelative Density (water = 1)Not available

**Solubility** Insoluble in water; Not available (in other liquids)

Partition Coefficient. 3.277 at 25 °C

n-Octanol/Water (Log Kow)

**Auto-ignition Temperature**Not available **Decomposition Temperature**68 °C (154 °F)

Viscosity Not available (kinematic); Not available (dynamic)

Other Information

Physical State Solid

# **SECTION 10. STABILITY AND REACTIVITY**

### Reactivity

Organic peroxide. Heating may cause a fire.

**Chemical Stability** 

Unstable.

# **Possibility of Hazardous Reactions**

Hazardous polymerization does not occur.

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#### **Conditions to Avoid**

Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials.

# **Incompatible Materials**

Strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide), strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides), amines (e.g. triethylamine).

# **Hazardous Decomposition Products**

Very toxic carbon monoxide, carbon dioxide.

# **SECTION 11. TOXICOLOGICAL INFORMATION**

# **Likely Routes of Exposure**

Inhalation; skin contact; eye contact; ingestion.

# **Acute Toxicity**

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Benzoyl peroxide	> 24300 mg/m3 (male rat) (4-hour exposure)	> 2000 (mouse)	Not available
Water	Not available	> 89840 mg/kg (rat)	Not available

#### Skin Corrosion/Irritation

Animal tests show no irritation.

# Serious Eye Damage/Irritation

Causes eye irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Causes nose and throat irritation.

### Ingestion

No information was located.

### **Aspiration Hazard**

No information was located.

# STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

# Respiratory and/or Skin Sensitization

No information was located for respiratory sensitization. Human experience shows allergic skin reactions (skin sensitization) in a substantial proportion of people exposed at work.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Benzoyl peroxide	Group 3	A4	Not Listed	Not Listed
Water	Not Listed	Not Listed	Not Listed	Not Listed

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Group 3 – Not classifiable as to its carcinogenicity to humans. Group 4 – Probably not carcinogenic to humans.

### **Reproductive Toxicity**

**Development of Offspring** 

No information was located.

**Sexual Function and Fertility** 

No information was located.

**Effects on or via Lactation** 

No information was located.

#### **Germ Cell Mutagenicity**

No information was located.

Interactive Effects

No information was located.

# **SECTION 12. ECOLOGICAL INFORMATION**

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

# **SECTION 13. DISPOSAL CONSIDERATIONS**

### **Disposal Methods**

Burn in an approved incinerator according to federal, provincial/state, and local regulations.

# **SECTION 14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN3102	ORGANIC PEROXIDE TYPE B, SOLID (Dibenzoyl peroxide, >52-100%)	5.2	II
IMO (Marine)	UN3102	ORGANIC PEROXIDE TYPE B, SOLID (Dibenzoyl peroxide, >52-100%)	5.2	II

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

# **SECTION 15. REGULATORY INFORMATION**

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

### **SECTION 16. OTHER INFORMATION**

SDS Prepared By Alphachem Limited (905)-821-2995

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References Disclaimer

CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.

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