

MATERIAL SAFETY DATA SHEET

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Version 1.4

Section 1 - Product and Company Information

Product Name BENZOYL PEROXIDE, 70%, REMAINDER
WATER
Product Number 228877
Brand ALDRICH

Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS MO 63103 US
Technical Phone: 314 771 5765
Emergency Phone: 414 273 3850 Ext. 5996
Fax: 800 325 5052

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
BENZOYL PEROXIDE, 70-75%, REMAINDER WATER	None	Yes

Ingredient Name	CAS #	Percent	SARA 313
BENZOYL PEROXIDE	94-36-0	>= 70 <= 75	Yes
WATER	7732-18-5	>= 25 <= 30	No

Formula C14H10O4
Chemical Family Organic peroxide.

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Oxidizing. Irritant.

Explosive when dry. Contact with combustible material may cause fire. Irritating to eyes. May cause sensitization by skin contact.

Readily absorbed through skin. Target organ(s): Lungs. Nerves.

HMIS RATING

HEALTH: 3*

FLAMMABILITY: 0

REACTIVITY: 3

SPECIAL HAZARD(S): Oxidizer

NFPA RATING

HEALTH: 3

FLAMMABILITY: 0

REACTIVITY: 3

SPECIAL HAZARD(S): Oxidizer

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMP

80 °C

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions. Contact with other material may cause fire. May accelerate combustion.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame.
Store at -20°C

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Government approved respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Remove and wash contaminated clothing promptly. Discard contaminated shoes.

Section 9 - Physical/Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
Molecular Weight	242.23 AMU	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	103 - 104 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	80 °C	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water: Insoluble.	

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Unstable.
Conditions of Instability: Self ignition is possible.
Conditions to Avoid: Heat. Contamination.

Materials to Avoid: Strong acids, Strong bases, Strong oxidizing agents, Amines, Polymerizing initiators, Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Benzoic acid.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Readily absorbed through skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

SENSITIZATION

Skin: May cause skin sensitization

TARGET ORGAN(S) OR SYSTEM(S)

Lungs. Nerves. Testes.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral
Rat
> 950 mg/kg
LD50
Oral
Rat
> 5,000 mg/kg
LD50
Inhalation
Rat
> 22.4 ppm
LC50

IRRITATION DATA

Skin
Rabbit
4 HR
Remarks: No irritation effect
Eyes
Rabbit
4 HR
Remarks: Severe irritation effect

Section 12 - Ecological Information

ACUTE ECOTOXICITY TESTS

Test Type: LC50 Fish
Species: other fish
Time: 96 h

Value: 2 mg/l

Test Type: EC50 Daphnia
Species: Daphnia magna
Time: 48 h
Value: 2.9 mg/l

Test Type: EC50 Algae
Time: 72 h
Value: 0.83 mg/l

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Organic peroxide type C, solid
UN#: 3104
Class: 5.2
Packing Group: Packing Group II
Hazard Label: Organic Peroxide
PIH: Not PIH

IATA

Proper Shipping Name: Organic peroxide type C, solid
IATA UN Number: 3104
Hazard Class: 5.2

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: O Xi
Indication of Danger: Oxidizing. Irritant.
R: 1 8 36 43
Risk Statements: Explosive when dry. Contact with combustible material may cause fire. Irritating to eyes. May cause sensitization by skin contact.
S: 17 26 36/37
Safety Statements: Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Oxidizing. Irritant.
Risk Statements: Explosive when dry. Contact with combustible material may cause fire. Irritating to eyes. May cause sensitization by skin contact.
Safety Statements: Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.
US Statements: Readily absorbed through skin. Target organ(s): Lungs. Nerves.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes

NOTES: This product is or contains a component that is subject to SARA313 reporting requirements.

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.