

MATERIAL SAFETY DATA SHEET

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Version 1.4

Section 1 - Product and Company Information

Product Name	BENZOYL PEROXIDE, 97% (LUPEROX A98)
Product Number	179981
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	94-36-0	Yes

Formula	C14H10O4
Synonyms	Acnegel * Aztec BPO * Benzoperoxide * Benzoylperoxid (German) * Benzoyl peroxide (ACGIH:OSHA) * Benzoylperoxyde (Dutch) * Benzoyl superoxide * BZF-60 * Cadat BPO * Cadox B-CH 50 * Cadox BS * Debroxide * Dibenzoylperoxid (German) * Dibenzoyl peroxide * Dibenzoylperoxyde (Dutch) * Diphenylglyoxal peroxide * Fostex * Garox * Icidol * Loroxide * Lucidol * Luperco AA * Luperco AST * Luperox FL * Nayper B and BO * Norox bzp-250 * Norox bzp-C-35 * Novadelox * Oxylite * Panoxyl * Perossido di benzoile (Italian) * Peroxide, dibenzoyl * Peroxyde de benzoyle (French) * Persadox * Quinolor compound * Superox 744 * Theraderm * Topex * Vanoxide * Xerac * DIBENZOYL PEROXIDE, LUPEROX A70S
RTECS Number:	DM8575000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Explosive. Irritant.

May cause fire. Risk of explosion by shock, friction, fire, or other sources of ignition. Irritating to eyes. May cause sensitization by inhalation and skin contact.

HMIS RATING

HEALTH: 3*

FLAMMABILITY: 1

REACTIVITY: 3

SPECIAL HAZARD(S): Oxidizer

NFPA RATING

HEALTH: 3

FLAMMABILITY: 1

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

EXPLOSION HAZARDS

May explode when heated. Container explosion may occur under fire conditions.

EXPLOSION DATA

Sensitivity to Mechanical Impact: May be shock-sensitive.

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

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)

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	< 0.05 %
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	N/A
Refractive Index	N/A
Optical Rotation	N/A
Miscellaneous Data	N/A
Solubility	N/A

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Materials to Avoid: Alcohols Avoid contact with metals.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

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.

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

Respiratory: May cause allergic respiratory reaction.

Skin: May cause allergic skin reaction.

SIGNS AND SYMPTOMS OF EXPOSURE

Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue.

TOXICITY DATA

Oral

Rat

7710 mg/kg

LD50

Remarks: Lungs, Thorax, or Respiration:Cyanosis. Liver:Other changes. Kidney, Ureter, Bladder:Other changes in urine

composition.

Oral
Mouse
5700 mg/kg
LD50

Intraperitoneal
Mouse
250 MG/KG
LD50

Skin
Mammal
> 1000 mg/kg
LD50

IRRITATION DATA

Eyes
Rabbit
500 mg
24H
Remarks: Mild irritation effect

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Species: Mouse
Route of Application: Skin
Dose: 24 GM/KG
Exposure Time: 30W
Frequency: I
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

IARC CARCINOGEN LIST

Rating: Group 3

ACGIH CARCINOGEN LIST

Rating: A4

CHRONIC EXPOSURE - MUTAGEN

Result: Laboratory experiments have shown mutagenic effects.

Species: Human
Dose: 100 UMOL/L
Cell Type: Other cell types
Mutation test: DNA damage

Species: Human
Dose: 56 UMOL/L
Cell Type: Other cell types
Mutation test: DNA inhibition

Species: Human
Dose: 56 UMOL/L
Cell Type: Other cell types

Mutation test: Other mutation test systems

Species: Human
Dose: 300 UMOL/L
Cell Type: kidney
Mutation test: Mutation in mammalian somatic cells.

Species: Rat
Dose: 100 PMOL/L
Cell Type: liver
Mutation test: Unscheduled DNA synthesis

Species: Mouse
Dose: 1 UMOL/L
Cell Type: Other cell types
Mutation test: DNA damage

Section 12 - Ecological Information

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 B, solid
UN#: 3102
Class: 5.2
Packing Group: Packing Group II
Hazard Label: Organic Peroxide
Hazard Label: Explosive.
PIH: Not PIH

IATA

Proper Shipping Name: Organic peroxide type B, solid
IATA UN Number: 3102
Hazard Class: 5.2
Not Allowed - Aircraft: Not permitted for air transport.

Section 15 - Regulatory Information

EU DIRECTIVES CLASSIFICATION

Symbol of Danger: E Xi
Indication of Danger: Explosive. Irritant.
R: 2 36 43
Risk Statements: Risk of explosion by shock, friction, fire, or other sources of ignition. Irritating to eyes. May cause sensitization by skin contact.
S: 3/7 14 36/37/39
Safety Statements: Keep container tightly closed in a cool place. Keep away from combustible material. Wear suitable protective clothing, gloves, and eye/face protection.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Explosive. Irritant.
Risk Statements: May cause fire. Risk of explosion by shock,

friction, fire, or other sources of ignition. Irritating to eyes. May cause sensitization by inhalation and skin contact. Safety Statements: Keep away from heat. Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves, and eye/face protection.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes

DEMINIMIS: 1 %

NOTES: This product is subject to SARA section 313 reporting requirements.

TSCA INVENTORY ITEM: Yes

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: Yes

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 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.