

#### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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#### **SECTION 1: Identification**

#### 1.1. Identification

Product form : Mixture

Trade name : Benzoyl Peroxide, Plasticized

Product code : 24232
Formula : nap

#### 1.2. Recommended use and restrictions on use

Recommended use : Use as laboratory reagent, Manufacture of substances

#### 1.3. Supplier

#### Supplier

Polysciences 400 Valley Road Warrington, PA 18976 - United States T +1 215 343 6484 - F +1 215 343 0214 info@polysciences.com - www.polysciences.com

#### 1.4. Emergency telephone number

Emergency number : 24-hour emergency phone number ChemTel 1-800-255-3924

#### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

#### **GHS US classification**

Explosive Category 1.3 Explosive; fire, blast or projection hazard Oxidizing solids Category 3 May intensify fire; oxidizer Organic Peroxide Category A Heating may cause an explosion

Skin corrosion/irritation Category 2 Causes skin irritation Serious eye damage/eye irritation Category 2B Causes eye irritation

Hazardous to the aquatic environment - Chronic Hazard Harmful to aquatic life with long lasting effects

Category 3

#### 2.2. GHS Label elements, including precautionary statements

#### **GHS US labeling**

Hazard pictograms (GHS US)









Signal word (GHS US) : Danger

Hazard statements (GHS US) : Explosive; fire, blast or projection hazard

Heating may cause an explosion
May intensify fire; oxidizer
Causes skin irritation
Causes eye irritation

Harmful to aquatic life with long lasting effects

Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

moking

Keep/Store away from clothing and other combustible materials Take any precaution to avoid mixing with combustibles

Keep wetted with appropriate material. Keep only in original container.

Ground/Bond container and receiving equipment.

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

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#### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
BENZOYL PEROXIDE	(CAS-No.) 94-36-0	51 – 60	Org. Perox. B, H241 Eye Irrit. 2, H319 Skin Sens. 1, H317
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	(CAS-No.) 84-61-7	51 – 60	Skin Sens. 1, H317 Repr. 2, H361 STOT RE 2, H373 Aquatic Chronic 3, H412

Full text of hazard classes and H-statements : see section 16

#### **SECTION 4: First-aid measures**

#### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get

medical advice/attention.

First-aid measures after 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.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Mild eye irritation.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

#### **SECTION 5: Fire-fighting measures**

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

#### 5.2. Specific hazards arising from the chemical

Fire hazard : May intensify fire; oxidizer.

Explosion hazard : Explosion risk in case of fire. Heating may cause an explosion.

Hazardous decomposition products in case of : Toxic fumes may be released.

fire

#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Evacuate area. Do not fight fire when fire reaches explosives.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin

and eyes.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

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#### 6.4. Reference to other sections

For further information refer to section 13.

## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Keep away

from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Do not subject to grinding, shock, friction.

Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store at 4 deg. C. Store in a well-ventilated place. Keep cool. Store away from other materials.

Protect from sunlight. Keep only in original container.

Incompatible materials : Combustible materials.

#### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### Benzoyl Peroxide, Plasticized

No additional information available

#### **BENZOYL PEROXIDE (94-36-0)**

No additional information available

#### 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

#### Personal protective equipment symbol(s):



#### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : white free-flowing granules.

Color : Mixture contains one or more component(s) which have the following colour(s):

white

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: There may be no odour warning properties, odour is subjective and inadequate to warn of Odor

Mixture contains one or more component(s) which have the following odour:

mild aromatic

: nap

Odor threshold No data available рΗ No data available

Melting point no data

Freezing point Not applicable **Boiling point** : no data Flash point

Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Non flammable.

Vapor pressure no data Relative vapor density at 20°C : no data

Relative density : No data available Solubility : No data available : No data available Partition coefficient n-octanol/water (Log Pow) Auto-ignition temperature Not applicable : No data available Decomposition temperature : No data available Viscosity, kinematic Viscosity, dynamic No data available **Explosion limits** : Not applicable

Explosive properties Heating may cause an explosion.

: No data available Oxidizing properties

#### 9.2. Other information

No additional information available

#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Explosive; fire, blast or projection hazard. May cause or intensify fire; oxidizer. Heating may cause an explosion.

#### 10.2. **Chemical stability**

Stable under normal conditions.

#### Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### **Conditions to avoid**

None under recommended storage and handling conditions (see section 7). Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

#### Incompatible materials

Combustible materials.

#### **Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

#### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

: Not classified Acute toxicity (oral) Acute toxicity (dermal) : Not classified Acute toxicity (inhalation) : Not classified

1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)		
LD50 oral rat	30 ml/kg	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))	
Skin corrosion/irritation	· Causes skin irritation	

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Serious eye damage/irritation : Causes eye irritation.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

**BENZOYL PEROXIDE (94-36-0)** 

IARC group 3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

# 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7) NOAEL (oral,rat,90 days) 50 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Mild eye irritation.

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. Harmful to aquatic life with long lasting effects.

1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)		
LC50 fish 1	> 2 mg/l Test organisms (species): Oryzias latipes	
LOEC (chronic)	0.572 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC (chronic)	0.181 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

No additional information available

#### **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

#### **SECTION 14: Transport information**

#### **Department of Transportation (DOT)**

In accordance with DOT

Transport document description : UN3106 Organic peroxide type D, solid, 5.2

UN-No.(DOT) : UN3106

Proper Shipping Name (DOT) : Organic peroxide type D, solid

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Class (DOT) : 5.2 - Class 5.2 - Organic Peroxide 49 CFR 173.128

Hazard labels (DOT) : 5.2 - Organic peroxide



DOT Packaging Non Bulk (49 CFR 173.xxx) : 225
DOT Packaging Bulk (49 CFR 173.xxx) : None

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Packaging Exceptions (49 CFR 173.xxx) : 152
DOT Quantity Limitations Passenger aircraft/rail : 5 kg
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 10 kg

CFR 175.75)

DOT Vessel Stowage Location : D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel

carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger

vessels in which the limiting number of passengers is exceeded.

DOT Vessel Stowage Other : 12 - Keep as cool as reasonably practicable, 25 - Protected from sources of heat, 52 - Stow

"separated from" acids,53 - Stow "separated from" alkaline compounds

Emergency Response Guide (ERG) Number : 14

Other information : No supplementary information available.

#### **Transportation of Dangerous Goods**

Not applicable

#### Transport by sea

Transport document description (IMDG) : UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2

UN-No. (IMDG) : 3106

Proper Shipping Name (IMDG) : ORGANIC PEROXIDE TYPE D, SOLID

Class (IMDG) : 5.2 - Organic peroxides

Limited quantities (IMDG) : 500 g

#### Air transport

Not regulated

#### **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

#### **BENZOYL PEROXIDE (94-36-0)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

#### 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

#### **CANADA**

#### **BENZOYL PEROXIDE (94-36-0)**

Listed on the Canadian DSL (Domestic Substances List)

#### 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

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#### 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### **National regulations**

#### 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (84-61-7)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals) Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### 15.3. US State regulations

Component	State or local regulations
BENZOYL PEROXIDE(94-36-0)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

## **SECTION 16: Other information**

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Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient

temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F

but below 200 F. (Classes II IIIA)

Physical : 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at

normal temperature and pressure with low risk for explosion. Materials may react violently with

water or form peroxides upon exposure to air.

#### SDS US (GHS HazCom 2012)

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