

# Material Safety Data Sheet

## (Butyl Benzyl Phthalate)



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### SECTION 1 – PRODUCT AND COMPANY INFORMATION

**PRODUCT NAME** Butyl Benzyl Phthalate  
**SYNONYM** BBP, 1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester  
**FORMULA** C<sub>19</sub>H<sub>20</sub>O<sub>4</sub>  
**CAS NUMBER** 85-68-7

### SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT NAME	CAS NUMBER	PURITY
Butyl Benzyl Phthalate	85-68-7	100%

### SECTION 3- HAZARDS IDENTIFICATION

#### Emergency Overview

Toxic. Dangerous for the environment. May cause harm to the unborn child. Possible risk of impaired fertility. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Possible Carcinogen (US). Target organ(s): Liver. Pancreas.

#### HMIS Rating

Health: 1\*  
Flammability: 1  
Reactivity: 0

#### NFPA Rating

Health: 1  
Flammability: 1  
Reactivity: 0

### SECTION 4 – FIRST AID MEASURES

#### Oral Exposure

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

#### Inhalation Exposure

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

#### Dermal Exposure

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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** 235 °F 113 °C Method: closed cup  
**Autoignition Temp** 232 °C  
**Flammability** N/A

### Extinguishing Media

Suitable: Water spray. 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.

## 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. Wear disposable coveralls and discard them after use.

### Methods For Cleaning Up

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

## SECTION 7- HANDLING AND STORAGE

### Handling

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

### Storage

Suitable: Keep tightly closed.

## SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

### Engineering Controls

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

### Personal Protective Equipment

**Respiratory:** Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying

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respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

**Hand:** Compatible chemical-resistant gloves.

**Eye:** Chemical safety goggles.

### General Hygiene Measures

Wash contaminated clothing before reuse. Wash thoroughly after handling.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State:	Liquid
Property	Value	At Temperature or Pressure
Molecular Weight	312.37 AMU	
Vapor Pressure	0.16 mmHg	150 °C
Vapor Density	10.8 g/l	
SG/Density	1.1 g/cm <sup>3</sup>	
Flash Point	235 °F 113 °C	Method: closed cup
Autoignition Temp	232 °C	

## SECTION 10 – STABILITY AND REACTIVITY DATA

### Stability

Stable: Stable.

Materials to Avoid: Strong oxidizing agents, Strong bases.

### 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: May cause 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.

### Target Organ(s) Or System(s)

Liver. Pancreas.

### TOXICITY DATA

Oral	Rat	2330 mg/kg	LD50
Skin	Rat	6700 mg/kg	LD50
Oral	Mouse	4170 mg/kg	LD50
Skin	Mouse	6700 mg/kg	LD50

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Intraperitoneal	Mouse	3160 MG/KG	LD50
Skin	Rabbit	> 10000 mg/kg	LD50
Oral	Guinea pig	13750 mg/kg	LD50

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Withdrawal. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

### CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Species: Rat

Route of Application: Oral

Dose: 433 GM/KG

Exposure Time: 2Y

Frequency: C

Result: Tumorigenic:Carcinogenic by RTECS criteria.

Blood:Leukemia Blood:Lymphomas including Hodgkin's disease.

Species: Rat

Route of Application: Oral

Dose: 437 GM/KG

Exposure Time: 2Y

Frequency: C

Result: Tumorigenic:Carcinogenic by RTECS criteria.

Blood:Leukemia

Species: Rat

Route of Application: Oral

Dose: 364 GM/KG

Exposure Time: 2Y

Frequency: C

Result: Gastrointestinal:Tumors. Tumorigenic:Carcinogenic by RTECS criteria.

### IARC Carcinogen List

Rating: Group 3

### NTP Carcinogen List

Rating: Clear evidence.

Species: Rat

Route: Feed

### IRIS/EPA Carcinogen List

Rating: Group C

### Chronic Exposure - Teratogen

Result: May cause congenital malformation in the fetus.

Species: Rat

Dose: 16400 MG/KG

Route of Application: Oral

Exposure Time: (6-15D PREG)

Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Embryo or

Fetus: Other effects to embryo.

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### Chronic Exposure - Mutagen

Species: Hamster  
Dose: 2 MG/L  
Cell Type: Embryo  
Mutation test: Morphological transformation.

### Chronic Exposure - Reproductive Hazard

Result: Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Species: Rat  
Dose: 21 GM/KG  
Route of Application: Oral  
Exposure Time: (14D MALE)  
Result: Paternal Effects: Prostate, seminal vesicle, Cowper's gland, accessory glands. Paternal Effects: Testes, epididymis, sperm duct.

Species: Rat  
Dose: 16400 MG/KG  
Route of Application: Oral  
Exposure Time: (6-15D PREG)  
Result: Maternal Effects: Uterus, cervix, vagina. Maternal Effects: Other effects. Effects on Embryo or Fetus: Fetal death.

Species: Rat  
Dose: 4900 MG/KG  
Route of Application: Oral  
Exposure Time: (1-7D PREG)  
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).  
Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Specific Developmental Abnormalities: Musculoskeletal system.

Species: Rat  
Dose: 154 GM/KG  
Route of Application: Oral  
Exposure Time: (10W MALE)  
Result: Paternal Effects: Testes, epididymis, sperm duct.  
Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females).

Species: Rat  
Dose: 4500 MG/KG  
Route of Application: Oral  
Exposure Time: (0-8D PREG)  
Result: Maternal Effects: Other effects. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Species: Rat  
Dose: 1500 MG/KG  
Route of Application: Oral  
Exposure Time: (6D PREG)  
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).  
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

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Species: Mouse  
Dose: 9100 MG/KG  
Route of Application: Oral  
Exposure Time: (6-15D PREG)  
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).  
Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth). Effects on Embryo or Fetus: Other effects to embryo.

Species: Mouse  
Dose: 23300 MG/KG  
Route of Application: Oral  
Exposure Time: (6-15D PREG)  
Result: Maternal Effects: Other effects.

### SECTION 12 – ECOLOGICAL INFORMATION

#### Acute Ecotoxicity Tests

Test Type: LC50 Fish  
Species: Lepomis macrochirus (Bluegill)  
Time: 96 h  
Value: 1.7 mg/l

Test Type: EC50 Daphnia  
Species: Daphnia magna  
Time: 48 h  
Value: 1.7 mg/l

#### Elimination

Method: Biotic/Aerobic  
Elimination: 88 %  
Classification: Substantially biodegradable.

#### Additional Results/Data From Relevant Scientific Experiments

Avoid contamination of the environment

### SECTION 13 – DISPOSAL CONSIDERATION

#### Appropriate Method Of Disposal Of Substance Or Preparation

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

### SECTION 14 - TRANSPORTATION DATA

#### DOT

Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.  
UN#: 3082  
Class: 9  
Packing Group: Packing Group III  
Hazard Label: Class 9

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PIH: Not PIH

### IATA

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.

IATA UN Number: 3082

Hazard Class: 9

Packing Group: III

## SECTION 15 – REGULATORY INFORMATION

### EU Directives Classification

Symbol of Danger: T-N

Indication of Danger: Toxic. Dangerous for the environment.

R: 61-62-50/53

Risk Statements: May cause harm to the unborn child. Possible risk of impaired fertility. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S: 53-45-60-61

Safety Statements: Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

### US Classification and Label Text

Indication of Danger: Toxic. Dangerous for the environment.

Risk Statements: May cause harm to the unborn child. Possible risk of impaired fertility. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety Statements: Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

US Statements: Possible Carcinogen (US). Target organ(s): Liver. Pancreas.

### 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

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.