

ALFAAB24769

Benzyl n-butyl phthalate

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

产品说明:
Product Description: 苄基 正丁基 邻苯二甲酸酯
Benzyl n-butyl phthalate

Cat No. : B24769
CAS No 85-68-7
Molecular Formula C19 H20 O4

Supplier Avocado Research Chemicals Ltd.
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Recommended Use Laboratory chemicals.
Uses advised against

SECTION 2. HAZARD IDENTIFICATION

Physical State
Viscous liquid Liquid

Appearance
Colorless to yellow

Odor
Practically odorless

Emergency Overview
May be harmful if swallowed. May damage fertility or the unborn child. Very toxic to aquatic life with long lasting effects.

Classification of the substance or mixture

| | |
|--------------------------|-------------|
| Acute Oral Toxicity | Category 5 |
| Reproductive Toxicity | Category 1B |
| Acute aquatic toxicity | Category 1 |
| Chronic aquatic toxicity | Category 1 |

Label Elements



Signal Word

Danger

Benzyl n-butyl phthalate**Hazard Statements**

H303 - May be harmful if swallowed
H410 - Very toxic to aquatic life with long lasting effects
H360 - May damage fertility or the unborn child

Precautionary Statements**Prevention**

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear eye protection/ face protection

Response

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308 + P313 - IF exposed or concerned: Get medical advice/attention

Storage

P403 - Store in a well-ventilated place

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Physical and Chemical Hazards

None identified.

Health Hazards

May be harmful if swallowed. May damage fertility or the unborn child.

Environmental hazards

Very toxic to aquatic life with long lasting effects. . Will likely be mobile in the environment due to its water solubility. The product is water soluble, and may spread in water systems.

Contains a known or suspected endocrine disruptor. Included in the list established in accordance with Article 59(1) for having endocrine disrupting properties. Contains a substance on the National Authorities Endocrine Disruptor Lists.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No | Weight % |
|------------------------|---------|----------|
| Butyl benzyl phthalate | 85-68-7 | >95 |

SECTION 4. FIRST AID MEASURES**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Inhalation

Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

Ingestion

Do NOT induce vomiting. Get medical attention.

Most important symptoms and effects

No information available.

Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Notes to Physician

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.**Extinguishing media which must not be used for safety reasons**

No information available.

Specific Hazards Arising from the Chemical

Do not allow run-off from fire-fighting to enter drains or water courses.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required.

Environmental Precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment and Clean Up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE**Handling**

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

Specific Use(s)

Use in laboratories

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

| Component | ACGIH TLV | OSHA PEL | NIOSH | The United Kingdom | European Union |
|------------------------|-----------|----------|-------|--|----------------|
| Butyl benzyl phthalate | | | | STEL: 15 mg/m ³ 15 min TWA: 5 mg/m ³ 8 hr | |

Exposure Controls**Engineering Measures**

Benzyl n-butyl phthalate

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|----------------|-----------------------------------|-----------------|-------------|-----------------------|
| Nitrile rubber | See manufacturers recommendations | - | EN 374 | (minimum requirement) |
| Neoprene | | | | |
| Natural rubber | | | | |
| PVC | | | | |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141
When RPE is used a face piece Fit Test should be conducted

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---------------------------------|--------------------------|--|
| Appearance | Colorless to yellow | |
| Physical State | Viscous liquid | Liquid |
| Odor | Practically odorless | |
| Odor Threshold | No data available | |
| pH | No information available | |
| Melting Point/Range | -35 °C / -31 °F | |
| Softening Point | No data available | |
| Boiling Point/Range | 370 °C / 698 °F | 760 mmHg |
| Flash Point | 215 °C / 419 °F | Method - No information available |
| Evaporation Rate | No data available | |
| Flammability (solid,gas) | Not applicable | Liquid |
| Explosion Limits | No data available | |

Benzyl n-butyl phthalate

| | | |
|--|--------------------------|-------------|
| Vapor Pressure | No data available | |
| Vapor Density | No data available | (Air = 1.0) |
| Specific Gravity / Density | 1.1 | |
| Bulk Density | Not applicable | Liquid |
| Water Solubility | 2.7 mg/L (25°C) | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Component | log Pow | |
| Butyl benzyl phthalate | 4.91 | |
| Autoignition Temperature | No data available | |
| Decomposition Temperature | No data available | |
| Viscosity | No data available | |
| Explosive Properties | No information available | |
| Oxidizing Properties | No information available | |
| Molecular Formula | C19 H20 O4 | |
| Molecular Weight | 312.37 | |

SECTION 10. STABILITY AND REACTIVITY

| | |
|---------------------------------|--|
| Stability | Stable under normal conditions. |
| Hazardous Reactions | None under normal processing. |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Conditions to Avoid | Incompatible products. Excess heat. |
| Materials to avoid | Strong oxidizing agents. |

Hazardous Decomposition Products Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

(a) acute toxicity;

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------------|---------------------------|---------------------------|-----------------------------|
| Butyl benzyl phthalate | LD50 = 2330 mg/kg (Rat) | LD50 = 6700 mg/kg (Rat) | LC50 > 6.7 mg/L (Rat) 4 h |

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

Benzyl n-butyl phthalate

| | |
|--|--|
| (g) reproductive toxicity; Reproductive Effects Developmental Effects | Category 1B Possible risk of impaired fertility. May cause harm to the unborn child. |
| (h) STOT-single exposure; | No data available |
| (i) STOT-repeated exposure; | No data available |
| Target Organs | No information available. |
| (j) aspiration hazard; | No data available |
| Other Adverse Effects | See actual entry in RTECS for complete information |
| Symptoms / effects,both acute and delayed | No information available |

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component | Freshwater Fish | Water Flea | Freshwater Algae | Microtox |
|------------------------|--|---|---|----------|
| Butyl benzyl phthalate | Lepomis macrochirus: LC50=1.7 mg/L 96h Salmo gairdneri: LC50=1.1 mg/L 96h | EC50: > 0.76 mg/L, 48h Flow through (Daphnia magna) EC50: 0.9 - 1.1 mg/L, 48h Static (Daphnia magna) EC50: = 1.28 mg/L, 48h semi-static (Daphnia magna) EC50: = 0.97 mg/L, 48h (Daphnia magna) | EC50: 0.02 - 0.25 mg/L, 96h (Pseudokirchneriella subcapitata) EC50: 0.2 - 28.2 mg/L, 72h (Pseudokirchneriella subcapitata) | |

Persistence and Degradability
Persistence Readily biodegradable
Degradation in sewage treatment plant May persist, based on information available.
Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulative Potential May have some potential to bioaccumulate

| Component | log Pow | Bioconcentration factor (BCF) |
|------------------------|---------|---|
| Butyl benzyl phthalate | 4.91 | 255 dimensionless 194 dimensionless 9.4 dimensionless |

Mobility in soil The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

Endocrine Disruptor Information

| Component | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|------------------------|--|--|---|
| Butyl benzyl phthalate | Group I Chemical | High Exposure Concern | |

Persistent Organic Pollutant This product does not contain any known or suspected substance

Benzyl n-butyl phthalate**Ozone Depletion Potential** This product does not contain any known or suspected substance**SECTION 13. DISPOSAL CONSIDERATIONS****Waste from Residues/Unused Products** Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.**Contaminated Packaging** Dispose of this container to hazardous or special waste collection point.**Other Information** Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.**SECTION 14. TRANSPORT INFORMATION****Road and Rail Transport****UN-No** UN3082
Proper Shipping Name Environmentally hazardous substances, liquid, n.o.s.
Technical Shipping Name Butyl benzyl phthalate
Hazard Class 9
Packing Group III**IMDG/IMO****UN-No** UN3082
Proper Shipping Name Environmentally hazardous substances, liquid, n.o.s.
Technical Shipping Name Butyl benzyl phthalate
Hazard Class 9
Packing Group III**IATA****UN-No** UN3082
Proper Shipping Name Environmentally hazardous substances, liquid, n.o.s.
Technical Shipping Name Butyl benzyl phthalate
Hazard Class 9
Packing Group III**Special Precautions for User** No special precautions required**SECTION 15. REGULATORY INFORMATION****International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

| Component | The Inventory of Hazardous Chemicals (2015 Edition) | List of dangerous goods GB 12268 - 2012 | TCSI | IECSC | EINECS | TSCA | DSL | PICCS | ENCS | ISHL | AICS | KECL |
|------------------------|---|---|------|-------|-----------|------|-----|-------|------|------|------|----------|
| Butyl benzyl phthalate | - | X | X | X | 201-622-7 | X | X | X | X | X | X | KE-02200 |

National Regulations

Benzyl n-butyl phthalate

| Component | Toxic Chemical Substances Control Act |
|---|--|
| Butyl benzyl phthalate 85-68-7 (>95) | Class I (10 wt%) Class II (10 wt%) TRQ = 50 kg |

SECTION 16. OTHER INFORMATION

Prepared By Health, Safety and Environmental Department
Creation Date 12-Oct-2010
Revision Date 22-Apr-2024
Revision Summary New emergency telephone response service provider.

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Disclaimer

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End of Safety Data Sheet