SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers
Product name: Benzyl Butyl Phthalate
CAS-No.: 85-68-7

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet
Company: Central Drug House (P) Ltd
7/28 Vardaan House
New Delhi-10002
INDIA
Telephone: +91 11 49404040
Email: care@cdhfinechemical.com

1.4 Emergency telephone number
Emergency Phone #: +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Reproductive toxicity (Category 1B), H360Df
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram

Signal word: Danger
Hazard statement(s): May damage the unborn child. Suspected of damaging fertility.
H360Df
H410 Very toxic to aquatic life with long lasting effects.

Page 1 of 7
Precautionary statement(s)

P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P501 Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard none

Statements

Restricted to professional users.

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl butyl phthalate</td>
<td>Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>85-68-7</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>201-622-7</td>
<td></td>
</tr>
<tr>
<td>Index-No.</td>
<td>607-430-00-3</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available
SECTION 5: Firefighting measures

5.1 Extinguishing media
- Suitable extinguishing media
  Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
- Carbon oxides

5.3 Advice for firefighters
- Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
- No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions
- Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
- Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
- For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Avoid exposure - obtain special instructions before use. Avoid inhalation of vapour or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
- Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)
- Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls
- Appropriate engineering controls
  Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Personal protective equipment
  - Eye/face protection
    Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: liquid
   Colour: colourless

b) Odour
   No data available

c) Odour Threshold
   No data available

d) pH
   No data available

e) Melting point/freezing point
   Melting point/freezing point: < -34.99 °C

f) Initial boiling point and boiling range
   370 °C

g) Flash point
   113.0 °C - closed cup

h) Evaporation rate
   No data available

i) Flammability (solid, gas)
   No data available

j) Upper/lower flammability or explosive limits
   No data available

k) Vapour pressure
   14.4 mmHg at 250.0 °C
   0.2 mmHg at 150.0 °C

l) Vapour density
   No data available

m) Relative density
   1.1 g/cm3 at 25 °C

n) Water solubility
   0.00269 g/l at 25 °C - OECD Test Guideline 105 - slightly soluble

o) Partition coefficient: n-octanol/water
   log Pow: 4.91 at 20 °C

p) Auto-ignition temperature
   232.0 °C

q) Decomposition temperature
   No data available

r) Viscosity
   No data available

s) Explosive properties
   No data available

t) Oxidizing properties
   No data available

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong oxidizing agents, Strong bases

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - male and female - 2,330 mg/kg(Benzyl butyl phthalate)
(OECD Test Guideline 401)
LD50 Dermal - Rabbit - > 10,000 mg/kg(Benzyl butyl phthalate)

Skin corrosion/irritation
No data available(Benzyl butyl phthalate)

Serious eye damage/eye irritation
No data available(Benzyl butyl phthalate)

Respiratory or skin sensitisation
- Guinea pig(Benzyl butyl phthalate)
Result: Does not cause skin sensitisation.

Germ cell mutagenicity
Ames test(Benzyl butyl phthalate)
S. typhimurium
Result: negative

Carcinogenicity
This product is or contains a component that has been reported to be possi classification.(Benzyl butyl phthalate)
(Benzyl butyl phthalate)
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Benzyl butyl phthalate)

Reproductive toxicity
Presumed human reproductive toxicant(Benzyl butyl phthalate)
Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.(Benzyl butyl phthalate)

Specific target organ toxicity - single exposure
No data available(Benzyl butyl phthalate)

Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available (Benzyl butyl phthalate)

Additional Information
Repeated dose toxicity - Rat - male - Oral - No observed adverse effect level - 550 mg/kg (Benzyl butyl phthalate)
RTECS: TH9990000

May cause endocrine disruption (Benzyl butyl phthalate)
pancreas - (Benzyl butyl phthalate)

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Toxicity to fish</th>
<th>LC50 - Lepomis macrochirus (Bluegill) - 1.7 mg/l - 96.0 h (Benzyl butyl phthalate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEC - Oncorhynchus mykiss (rainbow trout) - 0.48 mg/l - 96.0 h (Benzyl butyl phthalate)</td>
<td></td>
</tr>
<tr>
<td>flow-through test LC50 - Pimephales promelais (fathead minnow) - 2.1 mg/l - 96 h (Benzyl butyl phthalate)</td>
<td></td>
</tr>
<tr>
<td>OECD Test Guideline 203</td>
<td></td>
</tr>
<tr>
<td>Toxicity to daphnia and other aquatic invertebrates</td>
<td>static test LC50 - Daphnia magna (Water flea) - 1.8 mg/l - 48 h (Benzyl butyl phthalate)</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Biodegradability</th>
<th>aerobic - Exposure time 14 d (Benzyl butyl phthalate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result: 81% - Readily biodegradable</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Bioaccumulation</th>
<th>Lepomis macrochirus (Bluegill) - 21 d</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 0.00973 mg/l (Benzyl butyl phthalate)</td>
<td></td>
</tr>
<tr>
<td>Bioconcentration factor (BCF): 663</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

No data available (Benzyl butyl phthalate)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.
SECTION 14: Transport information

14.1 UN number
ADR/RID: 3082  
IMDG: 3082  
IATA: 3082

14.2 UN proper shipping name
ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzyl butyl phthalate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzyl butyl phthalate)
IATA: Environmentally hazardous substance, liquid, n.o.s. (Benzyl butyl phthalate)

14.3 Transport hazard class(es)
ADR/RID: 9
IMDG: 9
IATA: 9

14.4 Packaging group
ADR/RID: III
IMDG: III
IATA: III

14.5 Environmental hazards
ADR/RID: yes
IMDG Marine pollutant: no
IATA: yes

14.6 Special precautions for user
No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Authorisations and/or restrictions on use
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-statements referred to under sections 2 and 3.
H360Df May damage the unborn child. Suspected of damaging fertility.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Further information
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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.