Bi-(2-Ethyl Hexyl) Phthalate  
CAS No 117-81-7

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

1.1 Product identifiers  
Product name: Bi-(2-Ethyl Hexyl) Phthalate  
CAS-No.: 117-81-7

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), H360FD

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 fertility. May damage the unborn child.  
H360FD: Obtain special instructions before use.  
Precautionary statement(s): Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P201: IF exposed or concerned: Get medical advice/ attention.  
P280: none  
P308 + P313: none  
Supplemental Hazard Statements: none
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. Endocrine disrupting chemical(s)

SECTION 3: Composition/information on ingredients

3.1 Substances
Synonyms: Phthalic acid bis(2-ethylhexyl ester) ‘Dioctyl’ phthalate DEHP

Formula: C24H38O4
Molecular weight: 390.56 g/mol
CAS-No.: 117-81-7
EC-No.: 204-211-0
Index-No.: 607-317-00-9

Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration
bis(2-Ethylhexyl) phthalate Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH) Repr. 1B; H360FD <= 100 %
CAS-No. 117-81-7
EC-No. 204-211-0
Index-No. 607-317-00-9
Registration number 01-2119484611-38-XXXX

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
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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.

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 contact with skin and eyes. 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
a) Appearance Form: liquid
b) Odour No data available
c) Odour Threshold No data available
d) pH No data available
e) Melting point/freezing point -50.0 °C
f) Initial boiling point and boiling range 386 °C - lit.
g) Flash point 207.0 °C - closed cup
h) Evaporation rate No data available
i) Flammability (solid, gas) No data available
j) Upper/lower flammability or explosive limits Lower explosion limit: 0.3 %(V)
k) Vapour pressure 1.2 mmHg at 93.0 °C
l) Vapour density No data available
m) Relative density 0.985 g/cm³ at 20 °C
n) Water solubility insoluble
o) Partition coefficient: n-octanol/water No data available
p) Auto-ignition temperature 390.0 °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

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - 30,000 mg/kg(bis(2-Ethylhexyl) phthalate)
LD50 Dermal - Rabbit - 25,000 mg/kg(bis(2-Ethylhexyl) phthalate)

Skin corrosion/irritation
Skin - Rabbit(bis(2-Ethylhexyl) phthalate)
Result: Mild skin irritation - 24 h

Serious eye damage/eye irritation
Eyes - Rabbit(bis(2-Ethylhexyl) phthalate)
Result: Mild eye irritation - 24 h

Respiratory or skin sensitisation
Maximisation Test - Guinea pig(bis(2-Ethylhexyl) phthalate)
Result: Does not cause skin sensitisation.
(OECD Test Guideline 406)

Germ cell mutagenicity
No data available(bis(2-Ethylhexyl) phthalate)

Carcinogenicity
This product is or contains a component that has been reported to be possibly classifiable.(bis(2-Ethylhexyl) phthalate)
(bis(2-Ethylhexyl) phthalate)
(bis(2-Ethylhexyl) phthalate)
IARC: 2B - Group 2B: Possibly carcinogenic to humans (bis(2-Ethylhexyl) phthalate)

Reproductive toxicity
May cause congenital malformation in the fetus.(bis(2-Ethylhexyl) phthalate)
Presumed human reproductive toxicant(bis(2-Ethylhexyl) phthalate)
May cause reproductive disorders.(bis(2-Ethylhexyl) phthalate)

Specific target organ toxicity - single exposure
No data available(bis(2-Ethylhexyl) phthalate)

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available(bis(2-Ethylhexyl) phthalate)
Additional Information
RTECS: TI0350000

Effects due to ingestion may include:
- Gastrointestinal disturbance (bis(2-Ethylhexyl) phthalate)
- Kidney - (bis(2-Ethylhexyl) phthalate)

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish:
- LC50 - Pimephales promelas (fathead minnow) - > 0.67 mg/l - 96 h (bis(2-Ethylhexyl) phthalate)
- LC50 - Oncorhynchus mykiss (rainbow trout) - > 0.32 mg/l - 96 h (bis(2-Ethylhexyl) phthalate)
- LC50 - Cyprinodon variegatus (sheepshead minnow) - > 0.17 mg/l - 96 h (bis(2-Ethylhexyl) phthalate)
- LC50 - Lepomis macrochirus (Bluegill) - > 0.20 mg/l - 96 h (bis(2-Ethylhexyl) phthalate)

Toxicity to daphnia and other aquatic invertebrates:
- NOEC - other fish - > 0.3 mg/l - 96 h (bis(2-Ethylhexyl) phthalate)
- Immobilization EC50 - Daphnia magna (Water flea) - > 0.16 mg/l - 48 h (bis(2-Ethylhexyl) phthalate)

12.2 Persistence and degradability

Biodegradability Result: - Readily biodegradable (OECD Test Guideline 301)

12.3 Bioaccumulative potential

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 100 d

- 0.014 mg/l (bis(2-Ethylhexyl) phthalate)
- Bioconcentration factor (BCF): 113

Remarks: Does not bioaccumulate.

12.4 Mobility in soil

No data available (bis(2-Ethylhexyl) 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

No data available

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: -  IMDG: -  IATA: -

14.2 UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

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

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

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

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.

Authorisations and/or restrictions on use

15.2 Chemical safety assessment
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.
H360FD May damage fertility. May damage the unborn child.

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.