



UPC CHEMICALS (MALAYSIA) SDN BHD

DI-2-ETHYLHEXYL PHTHALATE (DEHP)

Revision: 2.0

SAFETY DATA SHEET

Date: 30.10.2023

SECTION 1: IDENTIFICATION OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

- 1.1 Product identifier**
Product name DI-2-ETHYLHEXYL PHTHALATE (DEHP)
CAS Number 117-81-7
Chemical formula $C_{24}H_{38}O_4$
- 1.2 Other means of identification**
1,2-bis(2-ethylhexyl) benzene-1,2-dicarboxylate
Dioctyl phthalate (DOP)
Dioctyl orthophthalate
2-ethylhexyl phthalate
Di(2-ethylhexyl) orthophthalate
- 1.3 Recommended use of the chemical and restrictions on use**
Identified use(s) Polymer preparations and compounds.
Uses advised against None known.
- 1.4 Details of principal suppliers**
Company identification UPC Chemicals (Malaysia) Sdn Bhd
Lot 140, Jalan 2/1,
Kawasan Perindustrian Gebeng,
26080 Kuantan, Pahang, Malaysia.
Telephone +609-580 6100
Fax +609-580 6097
- 1.5 Emergency phone number** +609-580 6100 ext 1422

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance/mixture

Malaysia Classification, Labelling and Safety Data Sheet of Hazardous Chemicals (CLASS) Regulation 2013

Hazard Class	Hazard category	Hazard Statement(s)
Reproductive toxicity	Category 1B	May damage fertility. May damage the unborn child.

2.2 Label elements

Hazard pictogram(s)



Signal word

Danger.

Hazard statement(s)

H360FD: May damage fertility. May damage the unborn child.



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Precautionary statement(s)

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P281: Use personal protective equipment as required.
P308+P313: IF exposed or concerned: Get medical advice/ attention.
P405: Store locked up.
P501: Dispose of contents or container in accordance with local, state or national legislation.

2.3 Other hazards

None.

SECTION 3: COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

3.1 Substance

Malaysia Classification, Labelling and Safety Data Sheet of Hazardous Chemicals (CLASS) Regulation 2013

Composition	CAS No.	%W/W
Di-2-ethylhexyl phthalate	117-81-7	≤ 100

3.2 Mixture

Not applicable.

3.3 Additional information

None.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/ attention if you feel unwell.

Skin contact

Wash with plenty of soap and water.

Eye contact

Flush eyes with water for at least 15 minutes while holding eyelids open.

Ingestion

Wash out mouth with water. Give plenty of water to drink. Get medical advice/ attention if you feel unwell.

4.2 Most important symptoms/effects, acute and delayed

Dizziness, vomiting, drowsiness, headache, paralysis of hands and feet.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

IF exposed or concerned: Get medical advice/ attention. There is no specific antidote. Treat symptomatically.





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SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 Suitable (and unsuitable) extinguishing media**
In case of fire, use foam, dry powder or CO₂ for extinction.
- 5.2 Specific hazards arising from the chemical**
Not flammable. May give off toxic fumes in a fire. Carbon monoxide, carbon dioxide, hydrocarbons, aldehydes, ketones, phthalic anhydride.
- 5.3 Special protective equipment and precautions for fire fighters**
A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Water spray should be used to cool containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin and eyes. Use personal protective equipment as required.
- 6.2 Environmental precautions**
Avoid run off to waterways and sewers.
- 6.3 Methods and material for containment and cleaning up**
Soak up with inert absorbent. Wipe up remainder. Transfer to a lidded container for disposal accordance with local, state or national legislation.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling**
Ensure adequate ventilation. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapours. Avoid contact with skin and eyes. Use personal protective equipment as required.
- 7.2 Conditions for safe storage, including any incompatibilities**
Keep container tightly closed. Store in a well-ventilated place. Store locked up. Keep away from oxidizing agents, strong acids, strong alkalis, nitrates. Keep away from heat and sources of ignition.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

- 8.1 Control parameters**
- 8.1.1 Exposure monitoring**
Occupational exposure limits

Composition	CAS No.	TWA - 8hr (ppm)	TWA - 8hr (mg/m ³)	Ceiling limit airborne concentration	Remarks
Di-2-ethylhexyl phthalate	117-81-7	-	5	-	-

MEL – 15 mins: three times the eight-hour time-weighted average airborne concentration of the chemicals.

- 8.1.2 Biological monitoring**
Biological limit value
No information available.
- 8.2 Appropriate engineering controls**
Local exhaust ventilation is required.





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8.3 Individual protection measures, such as personal protective equipment

Eye/face protection	Wear goggles giving complete eye protection.
Skin protection	Wear protective gloves.
Respiratory protection	Wear respiratory protection.
Thermal hazards	Not applicable.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Odourless.
Odour threshold	No data.
pH	No data.
Melting point/freezing point	-55 °C - -50 °C
Initial boiling point and boiling range	374.15 °C (ASTM E1782)
Flash point	200 °C
Evaporation rate	-
Flammability (solid, gas)	No data.
Upper/lower flammability or explosive limits	No data.
Vapour pressure	0 Pa at 20 °C
Vapour density	16, air = 1
Relative density	0.98 at 20 °C
Solubility(ies)	0.003 mg/L at 20 °C
Partition coefficient: n-octanol/water	Log K _{ow} 7.5 at 20 °C
Auto-ignition temperature	390°C
Decomposition temperature	No data.
Viscosity	78.17 mm ² at 20 °C

9.2 Additional information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

Heat and sources of ignition.

10.5 Incompatible materials

Oxidizing agents, strong acids, strong alkalis, nitrates.





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10.6 Hazardous decomposition products

Toxic fumes. Carbon monoxide, carbon dioxide, hydrocarbons, aldehydes, ketones, phthalic anhydride.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects Acute toxicity

Not classified.

Composition	LD50 Oral	LD50 Dermal	LC50 inhalation
Di-2-ethylhexyl phthalate	Rat: 20000 mg/kg	Rabbit: 19800 mg/kg	Rat: 10620 mg/m ³

Skin corrosion or irritation

Not classified.

Serious eye damage or irritation

Not classified.

Respiratory sensitization

Not classified.

Skin sensitization

Not classified.

Germ cell mutagenicity

Not classified.

Carcinogenicity

Not classified.

Reproductive toxicity

May damage fertility. May damage the unborn child.

Specific target organ toxicity — single exposure

Not classified.

Specific target organ toxicity — repeated exposure

Not classified.

Aspiration hazard

Not classified.

11.2 Additional information

None.





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SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Substance is not toxic to aquatic organisms up to solubility limit, it is readily biodegradable while it is moderately bioaccumulable (BCF (Fish) = 614), it is therefore not classified as dangerous to the aquatic environment according to the GHS criteria.

12.2 Persistence and degradability

Readily biodegradable (OECD 301B).

12.3 Bioaccumulative potential

BCF (Fish) = 614.

12.4 Mobility in soil

Log K_{ow} 7.5 at 20 °C.

12.5 Other adverse effects

None.

SECTION 13: DISPOSAL INFORMATION

13.1 Disposal methods

Dispose of contents in accordance with local, state or national legislation.

13.2 Additional information

None.

SECTION 14: TRANSPORTATION INFORMATION

14.1 UN number

ADR/ IMDG/ IATA: Not regulated.

14.2 UN proper shipping name

ADR/ IMDG/ IATA: Not regulated.

14.3 Transport hazard class(es)

ADR/ IMDG/ IATA: Not regulated.

14.4 Packing group, if applicable

ADR/ IMDG/ IATA: Not regulated.

14.5 Environmental hazards

ADR/ IMDG/ IATA: Not regulated.

14.6 Transport in bulk (according to Annex II of Marpol 73/78 and the IBC Code)

ADR/ IMDG/ IATA: Not regulated.

14.7 Special precautions for user

ADR/ IMDG/ IATA: Not regulated.

14.8 Additional information

None.





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SECTION 15: REGULATORY INFORMATION

15.1 Safety, health, and environmental regulations specific for the hazardous chemical in question

The SDS is compliance with the following regulations:

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals)

Regulations 2013 (CLASS Regulations 2013)

Industry Code of Practice on Chemical Classification and Hazard Communication 2019 (ICOP 2019)

SECTION 16: OTHER INFORMATION

16.1 Date of preparation of the SDS

30.10.2023

16.2 Date of revision of the SDS

None.

16.3 References

Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000

16.4 Acronym

MEL: Maximum Exposure Limit

TWA: Time Weighted Average

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods

16.5 Additional information

None.

Prepared by: GHS CONSULTANCY

Disclaimers

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

