

Material Safety Data Sheet

Diethyl phthalate

SECTION 1.1 – PRODUCT IDENTIFICATION

Product Name : Diethyl phthalate
Molecular Formula : $C_{12}H_{14}O_4$
Molecular Weight : 222.24 g/mole
CAS No. : 84-66-2

SECTION: 1.2 COMPANY IDENTIFICATION

Company Name: Indenta Chemicals (India) Pvt. Ltd.

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SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

| Name | CAS # | % by Weight |
|-------------------|---------|-------------|
| Diethyl phthalate | 84-66-2 | 100 |

Toxicological Data on Ingredients: No Data Available

SECTION 3: HAZARD IDENTIFICATION

3.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

3.2 Label elements

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

3.3 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 4: FIRST AID MEASURES

4.1 Description of first-aid measures

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

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 3.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: FIRE AND EXPLOSION DATA

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemisorb®).

Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

For precautions see section 3.2.

7.2 Conditions for safe storage, including any incompatibilities**Storage conditions**

Tightly closed.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters**Ingredients with workplace control parameters****8.2 Exposure controls****Personal protective equipment****Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatrill® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatrill® L

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

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 |
| | Color: light yellow |
| b) Odor | slight |
| c) Odor Threshold | No data available |
| d) pH | No data available |

| | |
|---|--|
| e) Melting point/freezing point | Melting point/range: -3 °C - lit. |
| f) Initial boiling point and boiling range | 298 - 299 °C - lit. |
| g) Flash point | 170 °C - closed cup - Regulation (EC) No. 440/2008, Annex, A.9 |
| h) Evaporation rate | No data available |
| i) Flammability (solid,gas) | No data available |
| j) Upper/lower flammability or explosive limits | Lower explosion limit: 0,75 %(V) |
| k) Vapor pressure | 19 hPa at 163 °C |
| l) Vapor density | 7,7 - (Air = 1.0) |
| m) Relative density | 1,12 g/cm ³ at 25 °C |
| n) Water solubility | 0,932 g/l at 20 °C - OECD Test Guideline 105- slightly soluble |
| o) Partition coefficient: n-octanol/water | log Pow: 2,2 at 40 °C - Bioaccumulation is not expected. |
| p) Autoignition temperature | 440 °C at 984 hPa |
| q) Decomposition temperature | No data available |
| r) Viscosity | Viscosity, kinematic: 11,53 mm ² /s at 20 °C - OECD Test Guideline 114 Viscosity, dynamic: 9,500 Pas at 25,00 °C |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |
| 9.2 Other safety information | |
| Surface tension | 0,03 N/m at 20 °C |
| Relative vapor density | 7,7 - (Air = 1.0) |

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Acids

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

various plastics, rubber

10.6 Hazardous decomposition products

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 - 5.591 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - 6 h - \geq 4,64 mg/l

Remarks:

(ECHA)

LD50 Dermal - Rat - male and female - $>$ 11.181 mg/kg

Remarks:

(ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h

Remarks:

(ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 48 h

Remarks:

(ECHA)

Respiratory or skin sensitization

Buehler Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

No data available

In vitro mammalian cell gene mutation test

mouse lymphoma cells

Result: negative

Chromosome aberration test in vitro

Human lymphocytes

Result: negative

Ames test

Escherichia coli/Salmonella typhimurium

Result: negative

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect level) - 150 mg/kg

Remarks:

(ECHA)

RTECS: TI1050000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

| | |
|---|--|
| Toxicity to fish | flow-through test LC50 - Cyprinodon variegatus (sheepshead minnow) - 29 mg/l - 96 h (US-EPA) flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 12 mg/l - 96 h (US-EPA) |
| Toxicity to daphnia and other aquatic invertebrates | static test LC50 - Daphnia magna (Water flea) - 90 mg/l - 48 h (US-EPA) |
| Toxicity to algae | static test EC50 - Desmodesmus subspicatus (green algae) - 45 mg/l - 72 h (OECD Test Guideline 201) |

12.2 Persistence and degradability

| | |
|------------------|--|
| Biodegradability | aerobic - Exposure time 28 d Result: 94,6 % - Readily biodegradable. Remarks: (ECHA) |
|------------------|--|

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

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 CONSIDERATION

13.1 Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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: OTHER REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: ADDITIONAL INFORMATION

This information is provided for documentation purposes only.

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