1. Substance/preparation and company identification

Company
BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932

24 Hour Emergency Response Information
CHEMTREC: (800) 424-9300
BASF HOTLINE: (800) 832-HELP

Chemical family: phthalate acid ester

2. Composition/information on ingredients

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Chemical name</th>
</tr>
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<tbody>
<tr>
<td>84-74-2</td>
<td>&gt;= 99.5 - &lt;= 100.0 %</td>
<td>dibutyl phthalate</td>
</tr>
</tbody>
</table>

3. Hazard identification

Emergency overview

WARNING: MAY ADVERSELY EFFECT THE DEVELOPING FETUS BASED ON ANIMAL DATA.
Avoid contact with the skin, eyes and clothing.
Avoid inhalation of mists/vapours.
Use with local exhaust ventilation.
Wear a NIOSH-certified (or equivalent) organic vapour respirator.
Wear safety glasses with side-shields.
Wear chemical resistant protective gloves.
Wear protective clothing.
Eye wash fountains and safety showers must be easily accessible.

Potential health effects

Primary routes of exposure
Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

4. First-aid measures

General advice:
Immediately remove contaminated clothing.

If inhaled:
If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:
Wash thoroughly with soap and water.
If irritation develops, seek medical attention.
5. Fire-fighting measures

Flash point: 188 °C (DIN/ISO 2592)
Autoignition: 390 °C (DIN 51794)
Lower explosion limit: 0.5 % (V) (167 °C, 5.5 hPa)
Upper explosion limit: 1.8 % (V) (195.3 °C, 18.7 hPa)

Suitable extinguishing media:
carbon dioxide, dry extinguishing media, water spray, water, foam

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

NFPA Hazard codes:
Health: 2  Fire: 1  Reactivity: 0  Special:

6. Accidental release measures

Personal precautions:
Avoid inhalation. Avoid contact with the skin, eyes and clothing.

Environmental precautions:
Do not empty into drains.

Cleanup:
For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of contaminated material as prescribed.

7. Handling and storage

Handling
General advice:
Ensure thorough ventilation of stores and work areas.

Storage
General advice:
8. Exposure controls and personal protection

Components with workplace control parameters

dibutyl phthalate | OSHA PEL 5 mg/m³ | ACGIH TWA value 5 mg/m³

Advice on system design:
Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Hand protection:
Chemical resistant protective gloves, Suitable materials, butyl rubber, Consult with glove manufacturer for testing data.

Eye protection:
Safety glasses with side-shields.

Body protection:
Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:
Avoid inhalation of vapour. Avoid contact with the skin, eyes and clothing.

9. Physical and chemical properties

Form: liquid
Odour: faint odour
Colour: colourless
pH value: approx. 7
Pour point: -69 °C (DIN/ISO 3016)
Boiling range: 180 - 186 °C (7 mbar) (DIN 53171)
Vapour pressure:
- < 0.1 hPa (20 °C)
- < 0.1 hPa (50 °C)
- 0.47 hPa (130 °C)
Density: 1.045 g/cm³ (20 °C) (DIN 51757)
Partitioning coefficient
n-octanol/water (log Pow): 4.6 - 4.9
Viscosity, dynamic:
- 19 - 22 mPa.s (20 °C) The value was determined by calculation from the detected kinematic viscosity.

Solubility in water: approx. 10 mg/l (20 °C) soluble
Solubility (qualitative): solvent(s): organic solvents,
10. Stability and reactivity

**Hazardous reactions:**
Reacts with strong oxidizing agents.

**Decomposition products:**
No hazardous decomposition products if stored and handled as prescribed/indicated.

**Thermal decomposition:**
No decomposition if used as directed.

11. Toxicological information

**Acute toxicity**

**Oral:**
LD50/rat: > 8,000 mg/kg

**Dermal:**
LD50/rabbit: > 20,000 mg/kg

**Skin irritation:**
rabbit: non-irritant (OECD Guideline 404)

**Eye irritation:**
rabbit: non-irritant (OECD Guideline 405)

**Sensitization:**
Guinea pig maximization test:
No sensitizing effect.

**Chronic toxicity**

**Other information:**
Reproduction toxicity studies in rats and mice: After oral administration indications of a fetotoxic effect and disturbances of the reproduction ability occured. risk of impaired fertility only after administration of very high doses of the substance

12. Ecological information

**Environmental fate and transport**
Safety data sheet
DIBUTYL PHTHALATE

Revision date: 2006/02/22
Version: 2.0

Biodegradation:
Test method: OECD 301B; ISO 9439; 92/69/EEC, C.4-C
Method of analysis: CO2 formation relative to the theoretical value
Degree of elimination: > 60 %
Evaluation: Readily biodegradable (according to OECD criteria).

Bioaccumulation:
Bioconcentration factor < 100
Literature data.

Environmental toxicity

Acute and prolonged toxicity to fish:
sunfish, bluegill/LC50 (96 h): 0.85 mg/l

Acute toxicity to aquatic invertebrates:
Daphnia magna/EC50 (48 h): 3.4 mg/l
OECD Guideline 202, part 1 Daphnia magna/No observed effect concentration (21 d): 1 mg/l

Toxicity to aquatic plants:
Guideline 92/69/EEC, C.3 static
green algae/EC50 (72 h): 2.0 mg/l
The details of the toxic effect relate to the nominal concentration.

Toxicity to microorganisms:
DIN 38412 Part 27 (draft) bacterium/EC20: > 10 mg/l
Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Other ecotoxicological advice:
Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:
Dispose of in accordance with national, state and local regulations.

Container disposal:
Empty containers with less than 1 inch of residue may be landfilled at a licensed facility.

14. Transport information

Land transport
USDOT
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DI-N-BUTYLPHTHALATE)
Hazard class: 9
ID-number: UN 3082
Packing group: III
Sea transport
IMDG
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Di-N-Butylphthalate)
Hazard class: 9
ID-number: UN 3082
Packing group: III
Marine pollutant: YES

Air transport
IATA/ICAO
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. contains (Di-N-Butylphthalate)
Hazard class: 9
ID-number: UN 3082
Packing group: III

15. Regulatory information

Federal Regulations
Registration status: TSCA, US released / listed
OSHA hazard category: Chronic target organ effects reported

CERCLA RQ | CAS Number | Chemical name
-----------|------------|-------------------
10 LBS     | 84-74-2    | dibutyl phthalate

SARA hazard categories (EPCRA 311/312): Chronic

SARA 313:

CAS Number | Chemical name
-----------|-------------------
84-74-2    | dibutyl phthalate

State regulations

State RTK

CAS Number | Chemical name | State RTK
-----------|---------------|-------------
84-74-2    | dibutyl phthalate | MA, NJ, PA

CA Prop. 65:
THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

16. Other information

HMIS III rating
Safety data sheet
DIBUTYL PHTHALATE

Revision date: 2006/02/22
Version: 2.0

Health: 2  Flammability: 1  Physical hazard: 0

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

Local contact information
prod_reg@basf.com

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END OF DATA SHEET