

# Material Safety Data Sheet

## n-Butyl phthalate

ACC# 06740

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** n-Butyl phthalate

**Catalog Numbers:** D30-4, D30-500

**Synonyms:** Di-n-butyl phthalate; 1,2-Benzenedicarboxylic acid, dibutyl ester; DBP; n-Butyl phthalate; Phthalic acid, dibutyl ester.

**Company Identification:**

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
84-74-2	Dibutyl phthalate	100	201-557-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless to light yellow liquid.

**Caution!** May cause harm to the unborn child. May be harmful if inhaled. May cause eye and skin irritation. May cause respiratory tract irritation. Possible risk of impaired fertility. Marine pollutant.

**Target Organs:** Reproductive system.

#### Potential Health Effects

**Eye:** Contact produces irritation, tearing, and burning pain. May cause chemical conjunctivitis.

**Skin:** May cause skin irritation.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** Inhalation of a mist of this material may cause respiratory tract irritation. May be harmful if inhaled.

**Chronic:** May cause adverse reproductive effects. Possible risk of harm to the unborn child.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** None reported.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Combustible material when exposed to heat or flame.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** 157 deg C ( 314.60 deg F)

**Autoignition Temperature:** 402 deg C ( 755.60 deg F)

**Explosion Limits, Lower:**0.5 @ 235°C

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 1; Instability: 0

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills

immediately, observing precautions in the Protective Equipment section. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse. Use only with adequate ventilation.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Dibutyl phthalate	5 mg/m3 TWA	5 mg/m3 TWA 4000 mg/m3 IDLH	5 mg/m3 TWA

**OSHA Vacated PELs:** Dibutyl phthalate: 5 mg/m3 TWA

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** colorless to light yellow

**Odor:** aromatic odor - mild odor

**pH:** Not available.

**Vapor Pressure:** < .01 mm Hg @ 20

**Vapor Density:** 9.58

**Evaporation Rate:**0 (butyl acetate=1)

**Viscosity:** 22 cP 20 C

**Boiling Point:** 340 deg C

**Freezing/Melting Point:**-35 deg C

**Decomposition Temperature:**Not available.

**Solubility:** Insoluble.

**Specific Gravity/Density:**1.047

**Molecular Formula:**C<sub>16</sub>H<sub>22</sub>O<sub>4</sub>

**Molecular Weight:**278.34

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, strong bases.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, acrid smoke and fumes.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 84-74-2: TI0875000

### LD50/LC50:

**CAS#** 84-74-2:

Inhalation, mouse: LC50 = 25 gm/m<sup>3</sup>/2H;

Inhalation, rat: LC50 = 4250 mg/m<sup>3</sup>;

Oral, mouse: LD50 = 3474 mg/kg;

Oral, rat: LD50 = 7499 mg/kg;

Skin, rabbit: LD50 = >20 mL/kg;

### Carcinogenicity:

**CAS#** 84-74-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found.

**Teratogenicity:** No information found.

**Reproductive Effects:** See actual entry in RTECS for complete information.

**Mutagenicity:** See actual entry in RTECS for complete information.

**Neurotoxicity:** No information found.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: Bluegill/Sunfish: 1.2mg/L; 96H; Fish: Fathead Minnow: 1.3mg/L; 96H; No data available.

**Environmental:** Terrestrial: Expected to have low mobility in soil. Volatilization from dry soil surfaces is not expected. Aquatic: Expected to adsorb to suspended solids and sediment in water. Expected to volatilize from water surfaces. Estimated half-lives for a model river and model lake are 14 and 125 days. Atmospheric: Expected to exist in both the vapor and particulate phases in the ambient atmosphere. Half-life 42 hours.

**Physical:** Expected to biodegrade and slightly bioconcentrate.

**Other:** Dangerous to aquatic life in high concentrations.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:**

CAS# 84-74-2: waste number U069.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.	No information available.
<b>Hazard Class:</b>	9	
<b>UN Number:</b>	UN3082	
<b>Packing Group:</b>	III	

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 84-74-2 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

CAS# 84-74-2: Test for Environmental Effects

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 84-74-2: 10 lb final RQ; 4.54 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 84-74-2: acute, chronic.

#### Section 313

This material contains Dibutyl phthalate (CAS# 84-74-2, 100%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

CAS# 84-74-2 is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

CAS# 84-74-2 is listed as a Hazardous Substance under the CWA. CAS# 84-74-2 is listed as a Priority Pollutant under the Clean Water Act.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 84-74-2 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T N

#### Risk Phrases:

R 50 Very toxic to aquatic organisms.

R 61 May cause harm to the unborn child.  
R 62 Possible risk of impaired fertility.

**Safety Phrases:**

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S 53 Avoid exposure - obtain special instructions before use.  
S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**WGK (Water Danger/Protection)**

CAS# 84-74-2: 2

**Canada - DSL/NDSL**

CAS# 84-74-2 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2B.

**Canadian Ingredient Disclosure List**

CAS# 84-74-2 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

**MSDS Creation Date:** 1/26/1999

**Revision #10 Date:** 10/05/2004

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*