

SAFETY DATA SHEET

Creation Date 03-Dec-2010

Revision Date 14-Feb-2020

Revision Number 2

1. Identification

Product Name Di-n-butyl phthalate

Cat No. : 31244

CAS-No 84-74-2
Synonyms DBP; n-Butyl phthalate

Recommended Use Laboratory chemicals.

Uses advised against .

Details of the supplier of the safety data sheet

Company

Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com
www.alfa.com

Emergency Telephone Number

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660.
After normal business hours, call Carechem 24 at (866) 928-0789.

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Liver, Kidney.	

Label Elements

Signal Word

Danger

Hazard Statements

May cause drowsiness or dizziness
May damage the unborn child. Suspected of damaging fertility
May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life
 WARNING. Reproductive Harm - <https://www.p65warnings.ca.gov/>.

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Dibutyl phthalate	84-74-2	99

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Ingestion	Do NOT induce vomiting. Get medical attention.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Dry chemical. Chemical foam.
Unsuitable Extinguishing Media	No information available
Flash Point	157 °C / 314.6 °F

Method -	No information available
Autoignition Temperature	390 °C / 734 °F
Explosion Limits	
Upper	2.5%
Lower	0.5% @ 235°C
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
2	1	0	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
Methods for Containment and Clean Up	Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not breathe mist/vapors/spray. Avoid contact with skin and eyes. Wash hands before breaks and immediately after handling the product.
Storage	Keep container tightly closed. Keep in a dry, cool and well-ventilated place. Refer product specification and/or product label for specific storage temperature requirement.

8. Exposure controls / personal protection**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Dibutyl phthalate	TWA: 5 mg/m ³	(Vacated) TWA: 5 mg/m ³ TWA: 5 mg/m ³	IDLH: 4000 mg/m ³ TWA: 5 mg/m ³	TWA: 5 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures	Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.
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Personal Protective Equipment

Eye/face Protection	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 and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-35 °C / -31 °F
Boiling Point/Range	340 °C / 644 °F
Flash Point	157 °C / 314.6 °F
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	2.5%
Lower	0.5% @ 235°C
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity	1.043
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	390 °C / 734 °F
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C16 H22 O4
Molecular Weight	278.34

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Acids, Bases, Chlorine
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information**Acute Toxicity**

Product Information
Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dibutyl phthalate	LD50 = 7499 mg/kg (Rat)	>20000 mg/kg (Rabbit)	LC50 >= 15.68 mg/L (Rat) 4 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Irritation May cause skin, eye, and respiratory tract irritation

Sensitization No information available

Carcinogenicity .

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Dibutyl phthalate	84-74-2	Not listed				

Mutagenic Effects No information available

Reproductive Effects Possible risk of impaired fertility.

Developmental Effects Component substance is listed on California Proposition 65 as a developmental hazard.

Teratogenicity May cause harm to the unborn child.

STOT - single exposure Central nervous system (CNS)

STOT - repeated exposure Liver Kidney

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Dibutyl phthalate	Group I Chemical	High Exposure Concern	Not applicable

Other Adverse Effects See actual entry in RTECS for complete information.

12. Ecological information

Ecotoxicity

Very toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Dibutyl phthalate	EC50: = 0.4 mg/L, 96h static (Pseudokirchneriella subcapitata) EC50: = 1.2 mg/L, 72h (Desmodesmus subspicatus)	LC50: 1.24 - 5.3 mg/L, 96h static (Oncorhynchus mykiss) LC50: > 1.24 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 0.31 - 5.45 mg/L, 96h static (Pimephales promelas) LC50: 1.38 - 1.74 mg/L, 96h flow-through (Lepomis macrochirus) LC50: 0.71 - 1.2 mg/L, 96h flow-through (Pimephales promelas) LC50: 0.42 - 1.28 mg/L, 96h static (Lepomis macrochirus)	EC50 = 10.9 mg/L 30 min EC50 = 10.9 mg/L 5 min EC50 = 11.1 mg/L 15 min EC50 = 2.2 mg/L 24 h	EC50: = 3.4 mg/L, 48h (Daphnia magna) EC50: = 2.99 mg/L, 48h Static (Daphnia magna)

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Persistence and Degradability Insoluble in water May persist

Bioaccumulation/ Accumulation No information available.

Mobility . Is not likely mobile in the environment due its low water solubility.

Component	log Pow
Dibutyl phthalate	5.38

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Dibutyl phthalate - 84-74-2	U069	-

14. Transport information

DOT

UN-No UN3082
Proper Shipping Name Environmentally hazardous substances, liquid, n.o.s.
Hazard Class 9
Packing Group III

TDG

UN-No UN3082
Proper Shipping Name Environmentally hazardous substances, liquid, n.o.s.
Hazard Class 9
Packing Group III

IATA

UN-No UN3082
Proper Shipping Name Environmentally hazardous substances, liquid, n.o.s.
Hazard Class 9
Packing Group III

IMDG/IMO

UN-No UN3082
Proper Shipping Name Environmentally hazardous substances, liquid, n.o.s.
Hazard Class 9
Packing Group III

15. Regulatory information

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags
Dibutyl phthalate	84-74-2	X	ACTIVE	-

Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL

Dibutyl phthalate	84-74-2	X	-	201-557-4	X	X	X	X	KE-02214
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U.S. Federal Regulations**SARA 313**

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Dibutyl phthalate	84-74-2	99	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Dibutyl phthalate	X	10 lb	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Dibutyl phthalate	X		-

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Dibutyl phthalate	10 lb	-

California Proposition 65 This product contains the following Proposition 65 chemicals.

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Dibutyl phthalate	84-74-2	Developmental Female Reproductive Male Reproductive	-	Developmental

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Dibutyl phthalate	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By Health, Safety and Environmental Department
Email: tech@alfa.com
www.alfa.com

Creation Date 03-Dec-2010

Revision Date 14-Feb-2020
Print Date 14-Feb-2020
Revision Summary SDS authoring systems update, replaces ChemGes SDS No. 84-74-2.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS