

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: Eastman(TM) DOP Plasticizer

Product No.: EAN 904099. 00401-00, P0040101, P0040100, E0040101, P0040107, P0040108, P0040109, E0040102

Synonyms, Trade Names: 00401-00

Additional identification

Chemical name: bis(2-ethylhexyl)1,2-benzenedicarboxylic acid
CAS-No.: 117-81-7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Plasticizer

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Eastman Chemical Company
200 South Wilcox Drive
Kingsport, TN 37660-5280 US
+14232292000

Visit our website at www.EASTMAN.com or email emnmsds@eastman.com

1.4 Emergency telephone number:

For emergency health, safety, and environmental information, call 1-423-229-4511 or 1-423-229-2000.

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300 or call 423-229-2000.

SECTION 2: Hazards identification

WARNING!
POSSIBLE CANCER HAZARD - MAY CAUSE CANCER BASED ON ANIMAL DATA
CAN CAUSE ADVERSE REPRODUCTIVE EFFECTS - SUCH AS BIRTH DEFECTS, MISCARRIAGES, OR INFERTILITY

SECTION 3: Composition/information on ingredients

3.1 / 3.2 Substances / Mixtures

General information:

Chemical name	Concentration	Additional identification	Notes
bis(2-ethylhexyl) phthalate	100%	117-81-7	#

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
#This substance has workplace exposure limit(s).
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation:	Move to fresh air. Treat symptomatically. Get medical attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
Skin contact:	Wash with soap and water. Get medical attention if symptoms occur.
Ingestion:	Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed: Symptoms may be delayed.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards:	None known.
Treatment:	Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards: None known.

5.1 Extinguishing media

Suitable extinguishing media: Water spray. Dry chemical. Carbon Dioxide. Foam.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture: None known.

5.3 Advice for firefighters

Special fire fighting procedures: None known.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures:** Wear appropriate personal protective equipment.
- 6.2 Environmental precautions:** Avoid release to the environment.
- 6.3 Methods and material for containment and cleaning up:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spillages: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.
- Notification Procedures:** In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SECTION 7: Handling and storage:

- 7.1 Precautions for safe handling:** Do not taste or swallow. Wash thoroughly after handling.
- 7.2 Conditions for safe storage, including any incompatibilities:** Keep container closed. Keep away from food, drink and animal feeding stuffs.
- 7.3 Specific end use(s):** Plasticizer

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limits

Country specific exposure limits have not been established or are not applicable unless listed below.

Chemical name	Type	Exposure Limit values	Source
bis(2-ethylhexyl) phthalate di-(2-ethylhexyl) phthalate DEHP	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (01 2010)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

8.2 Exposure controls

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information:	Eye bath. Washing facilities.
Eye/face protection:	It is a good industrial hygiene practice to minimize eye contact.
Skin protection	
Hand protection:	It is a good industrial hygiene practice to minimize skin contact.
Other:	No data available.
Respiratory Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.
Hygiene measures:	Observe good industrial hygiene practices.
Environmental Controls:	No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical State:	Liquid
Form:	Liquid
Color:	Colorless
Odor:	Slight
Odor Threshold:	
pH:	No data available.
Freezing Point:	-50 °C
Boiling Point:	384 °C
Flash Point:	216 °C (Cleveland open cup)
Evaporation Rate:	Not determined.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%)-:	No data available.
Flammability Limit - Lower (%)-:	No data available.
Vapor pressure:	0.0000001 mbar (20 °C)
Vapor density (air=1):	13.5
Specific Gravity:	0.985 (20 °C)
Solubility(ies)	
Solubility in Water:	0.1 g/l
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Pow: 75,858 log Pow: 4.88

Autoignition Temperature:	No data available.
Decomposition Temperature:	> 393 °C (DTA) No exotherm
Dynamic Viscosity:	56.6 mPa.s (25 °C)
Kinematic viscosity:	57.46 mm ² /s (25 °C)
Explosive properties:	No data available.
Oxidizing properties:	No data available.

Other information

Minimum ignition temperature:	382 °C (ASTM D2155)
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SECTION 10: Stability and reactivity

10.1 Reactivity:	None known.
10.2 Chemical stability:	Stable
10.3 Possibility of hazardous reactions:	None known.
10.4 Conditions to avoid:	None at ambient temperatures.
10.5 Incompatible materials:	Strong oxidizing agents.
10.6 Hazardous decomposition products:	Carbon Dioxide. Carbon Monoxide.

SECTION 11: Toxicological information**Information on likely routes of exposure**

Inhalation:	None known.
Ingestion:	None known.
Skin contact:	None known.
Eye contact:	None known.

11.1 Information on toxicological effects**Acute Toxicity****Oral**

Product:	No data available.
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Specified substance(s)

bis(2-ethylhexyl) phthalate	Oral LD-50: (Rat): > 5,000 mg/kg
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Dermal

Product:	No data available.
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Specified substance(s)

bis(2-ethylhexyl) phthalate	Dermal LD-50: (Rabbit): 19,800 mg/kg
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Inhalation

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate

LC50 (Rat, 4 h): > 10.62 mg/l (highest concentration tested) no deaths from exposure to nearly saturated vapor

Repeated dose toxicity

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate

No data available.

Skin corrosion/irritation:

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate

(Rabbit, 24 h): slight

Serious eye damage/eye irritation:

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate

(Rabbit): none

Respiratory or skin sensitization:

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate

Skin Sensitization:, (Guinea Pig) - none

Germ cell mutagenicity

In vitro

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate

No data available.

In vivo

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate

No data available.

Carcinogenicity

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate

IARC 2B: possibly carcinogenic to humans. NTP reasonably anticipated to be a carcinogen.

Reproductive toxicity

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate May damage fertility or the unborn child.

Specific target organ toxicity - single exposure

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate No data available.

Specific target organ toxicity - repeated exposure

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate No data available.

Aspiration hazard

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate No data available.

Other adverse effects:

DEHP, di (2-ethylhexyl) phthalate, was administered to rats and mice in a lifetime bioassay sponsored by the U.S. National Toxicology Program (NTP)., High feed concentrations (mice: 3000 and 6000 ppm; rats: 6000 and 12,000 ppm) were used because of the very low toxicity of di (2-ethylhexyl) phthalate., Liver tumors were produced at both dose levels in each species., However, high doses to humans handling this material are not expected since oral consumption is not a likely route of significant exposure., Oral doses of this material that were high enough to cause toxicity in pregnant animals also produced some minor abnormalities in their offspring., High oral doses of this material given to male animals produced reduced fertility., Contains an IARC (International Agency for Research on Cancer) 2B material. IARC 2B is a classification for possible human carcinogen based on sufficient evidence on carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans.

SECTION 12: Ecological information**12.1 Toxicity****Acute toxicity****Fish**

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate
LC-50 (Fathead Minnow, 96 h): > 0.67 mg/l (limit of solubility in fresh water)
NOEC: (Fathead Minnow, 96 h): > 0.67 mg/l (limit of solubility in fresh water)
LC-50 (Rainbow Trout, 96 h): > 0.32 mg/l (limit of solubility in fresh water)
NOEC: (Rainbow Trout, 96 h): > 0.32 mg/l (limit of solubility in fresh water)
LC-50 (Sheepshead Minnow, 96 h): > 0.17 mg/l (limit of solubility in fresh water)

Aquatic invertebrates

Product: No data available.

Specified substance(s)

bis(2-ethylhexyl) phthalate
LC-50 (Water Flea, 96 h): > 0.16 mg/l (limit of solubility in fresh water)
NOEC: (Water Flea, 96 h): > 0.16 mg/l (limit of solubility in fresh water)

Chronic Toxicity**Fish**

Product: No data available.

Specified substance(s)
bis(2-ethylhexyl) phthalate No data available.

Aquatic invertebrates

Product: No data available.

Specified substance(s)
bis(2-ethylhexyl) phthalate No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)
bis(2-ethylhexyl) phthalate EC-50 (Selenastrum capricornutum, 96 h): > 0.10 mg/l

12.2 Persistence and degradability**Biodegradation**

Product: No data available.

Specified substance(s)
bis(2-ethylhexyl) phthalate No data available.

Biological Oxygen Demand:

Product No data available.

Specified substance(s)
bis(2-ethylhexyl) phthalate No data available.

Chemical Oxygen Demand:

Product No data available.

Specified substance(s)
bis(2-ethylhexyl) phthalate No data available.

BOD/COD ratio

Product No data available.

Specified substance(s)
bis(2-ethylhexyl) phthalate No data available.

12.3 Bioaccumulative potential

Product: No data available.

Specified substance(s)
bis(2-ethylhexyl) phthalate No data available.

12.4 Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

bis(2-ethylhexyl) phthalate No data available.

12.5 Results of PBT and vPvB assessment: No data available.

bis(2-ethylhexyl) phthalate No data available.

12.6 Other adverse effects: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: No data available.

Disposal methods: Dispose of waste and residues in accordance with local authority requirements. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

SECTION 14: Transport information

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

DOT

Class 9, Packing Group III when material is shipped in quantities in one package at or above the Reportable Quantity and when no other hazard class applies; otherwise, not regulated.

Reportable Quantity: 45.4 kg (bis(2-ethylhexyl) phthalate)

Possible Shipping Description(s):

UN 3082 Environmentally hazardous substance, liquid, n.o.s. (bis(2-ethylhexyl) phthalate) 9 III

IMDG - International Maritime Dangerous Goods Code

Class not regulated

Possible Shipping Description(s):

not regulated

IATA

Class not regulated

Possible Shipping Description(s):

not regulated

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: D/2/A

SARA 311-312 Hazard Classification(s):

immediate (acute) health hazard

delayed (chronic) health hazard

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List

DI(2-ETHYLHEXYL) PHTHALATE

OSHA: hazardous

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL. Any impurities present in this product are exempt from listing.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

Inventory of Existing Chemical Substances in China: All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

SECTION 16: Other information

HMIS® Hazard Ratings: Health - 1*, Flammability - 1, Chemical Reactivity - 0

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Revision Information: Not relevant.

Key literature references and sources for data: No data available.

Training information: No data available.

Issue date: 09/12/2013

SDS No.:

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.