

Eastman(TM) DOP Plasticizer

Version	Revision Date:	SDS Number:	Date of last issue: -
2.1	11/13/2018	150000001060	Date of first issue: 09/06/2016
PRD		SDSUS / Z8 / 0001	

SECTION 1. IDENTIFICATION

Product name : Eastman(TM) DOP Plasticizer

Product code : 00401-00, P0040101, P0040100, E0040101, P0040107, P0040108, P0040109, E0040102

Manufacturer or supplier's details

Company name of supplier : Eastman Chemical Company

Address : 200 South Wilcox Drive
Kingsport TN 37660-5280

Telephone : (423) 229-2000

Emergency telephone : CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCN7321

Recommended use of the chemical and restrictions on use

Recommended use : Plasticizer

Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Carcinogenicity : Category 2

Reproductive toxicity : Category 1B

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

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P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
bis(2-ethylhexyl) phthalate	117-81-7	100

SECTION 4. FIRST AID MEASURES

If inhaled	:	Remove to fresh air. Treat symptomatically. Get medical advice/ attention.
In case of skin contact	:	Wash off with soap and water. Get medical attention if symptoms occur.
In case of eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If swallowed	:	Seek medical advice.
Most important symptoms and effects, both acute and delayed	:	Suspected of causing cancer. May damage fertility or the unborn child. Suspected of causing cancer. May damage fertility or the unborn child.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use water spray to extinguish. Dry chemical Carbon dioxide (CO2) Foam
Unsuitable extinguishing media	:	None known.
Specific hazards during fire fighting	:	None known.

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Hazardous combustion products : No hazardous combustion products are known

Further information : None known.

Special protective equipment for fire-fighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Wear appropriate personal protective equipment. Avoid release to the environment.

Environmental precautions : Avoid release to the environment.

Methods and materials for containment and cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : None known.

Advice on safe handling : Do not taste or swallow. Wash thoroughly after handling.

Conditions for safe storage : Keep container tightly closed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
di(2-ethylhexyl) phthalate (DEHP)	117-81-7	TWA	5 mg/m ³	ACGIH
		TWA	5 mg/m ³	NIOSH REL
		ST	10 mg/m ³	NIOSH REL
		TWA	5 mg/m ³	OSHA Z-1
		TWA	5 mg/m ³	OSHA P0
		STEL	10 mg/m ³	OSHA P0

Engineering measures : 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

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exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

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.

Hand protection

Remarks : Wear suitable gloves.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective clothing.

Protective measures : Wear suitable protective equipment.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : colorless

Odor : slight

Odor Threshold : not determined

pH : not determined

Melting point/freezing point : -58 °F / -50 °C

Boiling point/boiling range : 723 °F / 384 °C

Flash point : 421 °F / 216 °C

Method: Cleveland open cup

Evaporation rate : not determined

Upper explosion limit / Upper flammability limit : not determined

Vapor pressure : 0.0000001 mbar (68 °F / 20 °C)

Relative vapor density : 13.5

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Relative density : 0.985 (68 °F / 20 °C)

Solubility(ies)
Water solubility : 0.1 g/l

Partition coefficient: n-octanol/water : Pow: 75,858
log Pow: 4.88

Autoignition temperature : 720 °F / 382 °C
Method: ASTM D2155

Decomposition temperature : > 739 °F / > 393 °C
Method: DTA
No exotherm

Viscosity
Viscosity, dynamic : 56.6 mPa.s (77 °F / 25 °C)

Viscosity, kinematic : 57.46 mm²/s (77 °F / 25 °C)

Explosive properties : No data available

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable under recommended storage conditions.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : None known.
Stable

Conditions to avoid : None known.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : Carbon dioxide (CO₂)
Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Product:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 10.62 mg/l
Exposure time: 4 h
Remarks: (highest concentration tested)

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no deaths from exposure to nearly saturated vapor

Acute dermal toxicity : LD50 Dermal (Rabbit): 19,800 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit
Exposure time : 24 h
Result : slight

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species : Rabbit
Result : none

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Test Type : Skin Sensitization
Species : Guinea pig
Result : none

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Suspected of causing cancer.

Product:

Remarks : IARC 2B: possibly carcinogenic to humans.
NTP reasonably anticipated to be a carcinogen.
OSHA Not Listed.

Carcinogenicity - Assessment : IARC 2B: possibly carcinogenic to humans., NTP reasonably anticipated to be a carcinogen.

IARC Group 2B: Possibly carcinogenic to humans
di(2-ethylhexyl) phthalate (DEHP) 117-81-7

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP Reasonably anticipated to be a human carcinogen

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di(2-ethylhexyl) phthalate (DEHP)

117-81-7

Reproductive toxicity

May damage fertility or the unborn child.

Product:

Effects on fertility : Remarks: No data available

Reproductive toxicity - Assessment : May damage fertility or the unborn child.

STOT-single exposure

Not classified based on available information.

Product:

Remarks : No data available

STOT-repeated exposure

Not classified based on available information.

Product:

Remarks : No data available

Aspiration toxicity

Not classified based on available information.

Product:

No data available

Information on likely routes of exposure**Product:**

Inhalation : Remarks: None known.

Skin contact : Remarks: None known.

Eye contact : Remarks: None known.

Ingestion : Remarks: None known.

Further information**Product:**

Remarks : 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.

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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.
However, high doses to humans handling this material are not expected since oral consumption is not a likely route of significant exposure.
DEHP probably presents a negligible carcinogenic risk to humans at exposure levels typical of occupational or consumer use.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 0.67 mg/l
Exposure time: 96 h
Remarks: (limit of solubility in fresh water)

NOEC: (Pimephales promelas (fathead minnow)): > 0.67 mg/l
Exposure time: 96 h
Remarks: (limit of solubility in fresh water)

LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.32 mg/l
Exposure time: 96 h
Remarks: (limit of solubility in fresh water)

NOEC: (Oncorhynchus mykiss (rainbow trout)): > 0.32 mg/l
Exposure time: 96 h
Remarks: (limit of solubility in fresh water)

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 0.17 mg/l
Exposure time: 96 h
Remarks: (limit of solubility in fresh water)

NOEC: (Cyprinodon variegatus (sheepshead minnow)): > 0.17 mg/l
Exposure time: 96 h
Remarks: (limit of solubility in sea water)

LC50 (Lepomis macrochirus (Bluegill sunfish)): > 0.20 mg/l
Exposure time: 96 h
Remarks: (limit of solubility in fresh water)

NOEC: (Lepomis macrochirus (Bluegill sunfish)): > 0.20 mg/l
Exposure time: 96 h
Remarks: (limit of solubility in fresh water)

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 0.16 mg/l
Exposure time: 96 h

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Remarks: (limit of solubility in fresh water)

NOEC: (Daphnia magna (Water flea)): > 0.16 mg/l

Exposure time: 96 h

Remarks: (limit of solubility in fresh water)

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): > 0.10 mg/l
Exposure time: 96 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No. : UN 3082
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
 (bis(2-ethylhexyl) phthalate)
 Class : 9
 Packing group : III
 Labels : Miscellaneous
 Packing instruction (cargo aircraft) : 964
 Packing instruction (passenger aircraft) : 964

IMDG-Code

UN number : UN 3082
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
 N.O.S.
 (bis(2-ethylhexyl) phthalate)
 Class : 9
 Packing group : III
 Labels : 9
 EmS Code : F-A, S-F
 Marine pollutant : no

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

UN/ID/NA number	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (bis(2-ethylhexyl) phthalate)
Class	:	9
Packing group	:	III
Labels	:	Class 9 - Miscellaneous Dangerous Goods
ERG Code	:	171
Marine pollutant	:	no
Remarks	:	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.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
di(2-ethylhexyl) phthalate (DEHP)	117-81-7	100	100 (U028)

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Ingredients	CAS-No.	Component TPQ (lbs)
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SARA 311/312 Hazards : Chronic Health Hazard

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

di(2-ethylhexyl) phthalate 117-81-7
(DEHP)

California Prop. 65

WARNING: This product can expose you to chemicals including di(2-ethylhexyl) phthalate (DEHP), which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The ingredients of this product are reported in the following inventories:

CH INV : On the inventory, or in compliance with the inventory

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- DSL : On the inventory, or in compliance with the inventory
- AICS : On the inventory, or in compliance with the inventory
- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- ISHL : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- TCSI : On the inventory, or in compliance with the inventory
- TSCA : On the inventory, or in compliance with the inventory

TSCA list

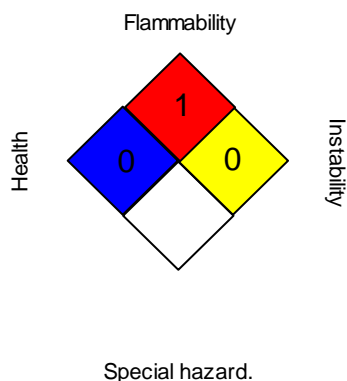
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	*	0
FLAMMABILITY	1	
PHYSICAL HAZARD	0	

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

- ACGIH : USA. ACGIH Threshold Limit Values (TLV)
- NIOSH REL : USA. NIOSH Recommended Exposure Limits
- OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

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	1910.1000
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	: 8-hour, time-weighted average
NIOSH REL / TWA	: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	: STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	: 8-hour time weighted average
OSHA P0 / STEL	: Short-term exposure limit
OSHA Z-1 / TWA	: 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The information provided in this Material 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.

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