

Safety Data Sheet

Diethyl Phthalate

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

1.1 Product identifier

Substance name: Diethyl Phthalate
Product Code: DOP
CAS No.: 117-81-7
EC No.: 204-211-0

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

Identified uses: Plasticiser; Solvent ; Intermediate
Uses advised against: Not available.

1.3 Details of the supplier of the SDS

Company name : Tianjin Yuanlong Chemical Industry Co., Ltd
Address: Room 605, Kangning Tower B, Xikang Ave, Heping District, Tianjin, China
Postcode: 300040
E-mail: info@yuanlongchem.com
Telephone: +86-22-23528561
Fax: +86-22-23523959
Emergency telephone number +86-22-23528561

Section 2: Composition/information on ingredients

2.1 Substance information

Substance name	Synonym	CAS No.	EC No.	Molecular formula	Concentration
Di(2-ethylhexyl) phthalate	Bis(2-ethylhexyl)phthalate DEHP DOP	117-81-7	204-211-0	C ₂₄ H ₃₈ O ₄	100%

Remark: The rest unspecified ingredients are impurities, and they are not hazard.

Section 3: Hazards identification

3.1 Classification of the chemical

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Clear liquid. Slight odour.

Classification

Classification procedure

Carcinogenicity

Category 2

Reproductive Toxicity

Category 1

Classification according to U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

3.2 Label elements

Hazard pictogram(s):



Signal word:

Danger.

Hazard statements:

May damage fertility or the unborn child.
Suspected of causing cancer.

Precautionary statements:

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.

Response:

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3.3 Other hazards

Other hazards which do not result in classification:

Ingestion may cause irritation of the mouth, throat and stomach. May cause mild skin irritation. May cause mild eye irritation.

Environmental precautions:

Avoid release to the environment. See ECOLOGICAL INFORMATION, Section 12.

Section 4: First aid measures

4.1 Description of first aid measures

General notes: In all cases of doubt, or when symptoms persist, seek medical attention.

Following inhalation:

If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Call a POISON CENTER or doctor/physician if you feel unwell.

Following skin contact:

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Wash affected areas with soap and water. Take off contaminated clothing and wash before re-use. Get medical attention if irritation develops and persists.

Following eye contact:

Flush with large amounts of water for 15 minutes. Remove contact lenses, if present and easy to do. If irritation or symptoms develop, seek medical attention.

Following ingestion:

Do not induce vomiting. Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

May damage fertility or the unborn child. Suspected of causing cancer. Direct skin contact may cause temporary redness. Direct eye contact may cause temporary redness. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3 Indication of the immediate medical attention and special treatment needed

Treat symptomatically.

Section 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.
Unsuitable extinguishing media:	Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

5.3 Advice for fire-fighters

Protective equipment for fire-fighters

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. A full-body chemical resistant suit should be worn.

Special fire-fighting procedures

Evacuate personnel to safe areas. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Dike for water control. Avoid release to the environment.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

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6.2 Environmental precautions

Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.
For large spills, dike the area to prevent spreading.

6.3 Methods and material for containment and cleaning up

Remove all sources of ignition. Ventilate the area. Prevent further leakage or spillage if safe to do so. Absorb material with inert absorbent, and place into labelled containers for disposal. Contact the proper local authorities.

6.4 Reference to other sections

In case of transportation accident, contact TERRAPURE ENVIRONMENTAL at 1-800-567-7455.

US CERCLA Reportable quantity (RQ): (100 lbs / 45.4 kg)

Section 7: Handling and storage

7.1 Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Wear protective gloves/clothing and eye/face protection. Use only outdoors or in a well-ventilated area. Do not breathe mist or vapor. Avoid contact with skin, eyes and clothing. Keep away from heat and flame.

Keep away from oxidizing agents. Keep away from incompatibles. Label containers appropriately. Wash thoroughly after handling. Keep containers closed when not in use.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

7.3 Specific end use(s)

Not available.

Section 8 : Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Di(2-ethylhexyl) phthalate	5 mg/m ³	N/Av	5 mg/m ³	10mg/m ³

8.2 Exposure controls

Appropriate engineering controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapours below their respective threshold limit value.

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Personal protective equipment:

Eye and face protection: Wear eye/face protection. Safety glasses with side-shields or chemical splash goggles.

Skin protection: Wear protective gloves/clothing. Advice should be sought from glove suppliers.

Respiratory protection: Respiratory protection is required if the concentrations exceed the TLV. Use a NIOSH approved dust respirator if dust levels exceed exposure limits. Seek advice from respiratory protection specialists.

Other protective equipment

Wear appropriate protective clothing to prevent skin contact, such as coveralls or long sleeved shirt, long pants, and shoes and socks. Wear protective gloves. An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards

Industrial hygiene:

Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Clear colourless liquid
Odour:	Slight odour
pH:	No data available
Melting/Freezing point:	-55°C
Boiling point:	2314°C
Vapour pressure:	1.2 mmHg
Vapour density	(Air = 1) 16
Relative density / Specific gravity	0.985 g/cm ³
Partition coefficient (n -octanol/water):	7.94
Solubility(in water):	0.1 g/L at 20°C
Other solubility(ies)	Soluble in non-polar solvents such as n-hexane and other hydrocarbon solvents.
Flash point:	215°C
Auto-ignition temperature:	390°C
Flammability:	No data available.
Decomposition temperature:	>393°C (739.4°F)
Explosive properties:	Lower explosion limit : not applicable Upper explosion limit : not applicable
Oxidising properties:	No data available.
Evaporation rate :	No data available.
Viscosity:	56.6 mPa.s (25°C) 57.46 mm ² /s (25°C)

9.2 Other information

No data available.

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Section 10: Stability and reactivity

10.1 Reactivity

Not normally reactive.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Ensure adequate ventilation, especially in confined areas. Avoid contact with incompatible materials.

10.5 Incompatible materials

See Section 7 (Handling and Storage) for further details.

10.6 Hazardous decomposition products

None known, refer to hazardous combustion products in Section 5.

Section 11: Toxicological information

11.1 Toxicokinetics, metabolism and distribution

Not available.

11.2 Information on toxicological effects

Acute toxicity:

Acute Oral toxicity: LDLo = 500 mg/kg (rat) (IUCLID);
Acute Inhalation toxicity: No data available;
Acute Dermal toxicity: LD₅₀ = 1350 mg/kg (rabbit) (IUCLID);
Skin corrosion/irritation:
Skin, rabbit: highly irritating.
Serious eye damage/irritation:
Eyes, rabbit: highly irritating.
Respiratory or skin sensitization:
No sensitizing effect known
CMR effects (Carcinogenicity, Mutagenicity and Toxicity for Reproduction):

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No data available.

STOT-single exposure and repeated exposure:

No data available.

Additional information:

RTECS #: WB4900000

Section 12: Ecological information

12.1 Toxicity

Acute fish toxicity:	LC ₅₀ = 45.5 mg/l/96h (<i>Oncorhynchus mykiss</i>)(IUCLD);
Acute daphnia toxicity:	EC ₅₀ = 76 mg/l/24h (<i>Daphnia magna</i>)(External MSDS);
Acute bacteria toxicity:	No data available;

12.2 Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

Harmful effect due to pH shift.

Neutralization possible in waste water treatment plants.

Section 13: Disposal considerations

13.1 Waste treatment methods

Consult state, local or national regulations for proper disposal.

Hand over to disposers of hazardous waste.

Must be specially treated under adherence to official regulations.

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Section 14: Transport information

14.1 Land transport (ADR/RID/GGVSE)

UN-No.:	1823
Official transport designation:	SODIUM HYDROXIDE, SOLID
Class:	8
Classification Code:	C6
Packing group:	II
Hazard label:	8
Tunnel restriction code:	E

14.2 Sea transport (IMDG-Code/GGVSee)

Proper Shipping Name:	SODIUM HYDROXIDE, SOLID
Class:	8
UN-No.:	1823
Packing group:	II
EmS No.:	F-A, S-B
Marine pollutant:	No

14.3 Air transport (ICAO-TI/IATA-DGR)

Proper Shipping Name:	SODIUM HYDROXIDE, SOLID
Class:	8
UN-No.:	1823
Packing group:	II

14.4 Additional information

No data available.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulation:	
Authorisations:	No information available.
Restrictions on use:	No information available.
EINECS:	This substance is listed in the inventory.
DSD (67/548/EEC):	This substance is listed in the Annex I.
Other chemical regulation:	
USA - TSCA:	This substance is listed in the inventory.

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Canada - DSL:	This substance is listed in the inventory.
Australia - AICS:	This substance is listed in the inventory.
Korea - ECL:	This substance is listed in the inventory.
Japan - ENCS:	This substance is listed in the inventory.
Philippiens-PICCS	This substance is listed in the inventory.
New Zealand:	This substance is listed in the inventory.
Israel	This substance is listed in the inventory.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

Section 16: Other information

16.1 Revision Information:

Date of the previous revision: Not applicable.

Date of this revision: 1/1/2021

Revision summary: The first new SDS

16.2 Abbreviations and acronyms

CLP:	EU regulation (EC) No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
EINECS:	European Inventory of Existing Commercial Chemical Substances.
RID:	European Rail Transport.
IMDG:	International Maritime Code for Dangerous Goods.
IATA:	International Air Transport Association.
OSHA:	The United States Occupational Safety and Health Administration.
TSCA:	Toxic Substances Control Act, The American chemical inventory.
DSD:	Dangerous Substance Directive (67/548/EEC).
DSL:	Domestic Substances List, The Canadian chemical inventory.
AICS:	The Australian Inventory of Chemical Substances.
ECL:	Existing Chemicals List, the Korean chemical inventory.
ENCS:	Japanese Existing and New Chemical Substances.
PICCS	Philippine Inventory of Chemicals and Chemical Substances

16.3 Key literature references and sources for data

ESIS IUCLID Dataset: European chemical Substances Information System.

HSDB: Hazardous Substances Data Bank.

ICSC: International Chemical Safety Cards.

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16.4 Relevant R-phrases and H-statements

R-phrases (code and full text):

R35 Causes severe burns.

H-statements (code and full text):

H314 Causes severe skin burns and eye damage.

16.5 Training advice

No data available.

16.6 Declare to reader

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