

GPS Safety Summary <u>Dioctyl Phthalate</u>

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1. General Statement

Dioctyl Phthalate is an organic compound. Di- n- octyl phthalate is a colorless, odorless, oily liquid that doesn't evaporate easily. Diethyl phthalate and phthalic acid derivatives such as Di-n-octyl phthalate (DOP) are commercially important chemicals used predominantly as plasticizers in high molecular- weight polymers, which are toxic to humans, animals, microorganisms, algae, aquatic invertebrates, and fish

2. Chemical identity

Name : Dioctyl Phthalate

CAS number(s) : 117-81-7

EC number : 204-211-0

Molecular formula : C24H38O4

Structure :

3. Uses and Benefits

Phthalates, a family of industrial chemicals used to soften polyvinyl chloride (PVC) plastic and as solvents in cosmetics and other consumer products

4. Physical / chemical properties

Property	Value
Physical state :	Liquid
Colour :	colorless
Odour :	odorless
pH:	No data available
Melting point	Not applicable
Boiling point :	385 °C

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Flash point :	207 °C
Density:	0.98 g/cm3 Type: 'density' Temp.: 20 °C
Solubility in Water:	No data available

5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	NA
Irritation / corrosion Skin / eye/ respiratory tract	NA
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	NA
Genotoxicity / Mutagenicity	NA
Carcinogenicity	NA
Toxicity for reproduction	May damage fertility. May damage the unborn child.

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	No
Fate and behavior	Result
Persistence and degradability	No additional information available
Bioaccumulative potential	No additional information available

7. Exposure

Human health

The substance may cause damage to fertility. May damage the unborn child.

The most likely route of human exposure (workers) is through skin. In industrial settings, ingestion is not an anticipated route of exposure. Workers may be exposed during (un)loading, mixing, sampling, analysis or maintenance operations and particularly in case of batch processes. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers. Careless handling or accidental spillage of the chemical could result in exposure to potentially hazardous levels of chemicals the substance is handled in closed systems, and it is

usual for operators to wear impervious suits and self-contained breathing apparatus for operations involving the transfer of dimethyl sulfate, where there is the possibility of greater exposure.

Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

Environment

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. More information about release measures and accidental release measures are available in the extended safety data sheet.

8. Risk Management Recommendations

Human health measures

Organizational	A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet.	
Protection	Eye protection:	Safety glasses
	Skin and body protection:	Wear suitable protective clothing (Avoid inhalation or skin contact)
	Respiratory protection:	High concentration or prolonged activity: self contained breathing apparatus. In the case of vapor formation: use a respirator with an approved filter
Engineering controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.	
Environment protective measures		
Product must not be released into water without pre-treatment. Neutralize wastewater before release.		

9. First-aid measures

First-aid measures after inhalation: Get medical advice/attention if you feel unwell. Allow the affected person to breathe fresh air.

First-aid measures after skin contact: Wash skin with plenty of water. Do not remove clothing if it sticks to the skin. Get immediate medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures after eye contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Get medical advice/attention if you feel unwell. Rinse eyes with water as a precaution.

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First-aid measures after ingestion: Rinse mouth out with water. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Dry powder. Carbon dioxide. Foam.

Unsuitable extinguishing media : NA

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire: On heating/burning: release of (highly) toxic

gases/vapours (sulphur oxides, carbon monoxide - carbon dioxide).

Advice for firefighters

Precautionary measures fire: Eliminate all ignition sources if safe to do so. Keep the container closed when not in use. Keep the container tightly closed and away from heat, sparks and flame.

Firefighting instructions: Fight fire from safe distance and protected location. Do not enter a fire area without proper protective equipment, including respiratory protection.

11. Accidental release measures

Protective equipment: Wear Safety glasses. Self-contained breathing apparatus. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product. Wear recommended personal protective equipment.

Environmental precautions: Prevent entry to sewers and public waters. Avoid discharge to the atmosphere. Do not allow entering drains or water courses.

For containment: Stop leak without risks if possible. Collect spillage. Do not touch or walk on the spilled product.

12. Disposal consideration

Regional legislation (waste): Disposal must be done according to official regulations.

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations: Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Hazardous waste shall not be mixed together with other waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

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13. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Avoid contact with skin, eyes and clothing. Eliminate all ignition sources if safe to do so. Handle and open the container with care. Handle carefully. Wear personal protective equipment.

Hygiene measures: Always wash hands after handling the product. Remove contaminated clothes. Wear personal protective equipment.

14. Classification and Labeling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

Signal word (CLP) : Danger

Hazard statements (CLP) : H360FD - May damage fertility. May damage the unborn child.

Precautionary statements (CLP) : 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/hearing

protection.

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

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

15. Conclusion

Di- n- octyl phthalate is a colorless, odorless, oily liquid that doesn't evaporate easily. The substance may cause damage to fertility. May damage the unborn child.

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

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16. Contact Information within company

Manufacturer

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This GPS safety summary is intended to give general information about the health, safety and environmental and not intended to provide in-depth details. To obtain the most accurate and current information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.