

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING:

1.1 Product Identifier

- 1.1.1. Commercial Name : Dioctyl Phthalate (DOP)
- 1.1.2. Field of use : Plasticizer
- 1.1.3. Producing Company

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2. COMPOSITION/INFORMATION ON INGREDIENTS:

- 2.1. Chemical structure : Bis (2-Ethylhexyl) phthalate
- 2.2. Chemical Property : Phthalic Acid Ester
- 2.3 Product Details:
 - 2.3.1 Indicator Number : 607-317-00-9
 - 2.3.2 CAS Number : 117-81-7
 - 2.3.3 AB (EC) Number : 204-211-0

3. POSSIBLE RISKS:

3.1. Classification : Category 2 Reproductive Toxins

3.2. Hazard Warning Symbols

Τ	: Toxic
R 60	: May affect negatively on reproduction ability.
R 61	: May give harm to the child to be newly born.



4. FIRST AID PRECAUTIONS:

4.1. General Instruction	: Take off polluted clothes and eyes immediately. Do not wear them without being cleaned.
4.2. In case of inhalation	:After inhalation of steam/fog, go out for fresh air. If there are difficulties in inhalation, refer to medical treatment immediately.
4.3. In case of skin contact:	Wash off carefully with soap and water. If irritation increases, refer to medical treatment.
4.4. In case of eye contact	: Rinse your eyes at least for 15 minutes with eyelids open. Refer to medical treatment.

5. FIREFIGHTING MEASURES:

Inflammation Point : 200°C Flash Point : 370°C Lower-explosion point: %0,15 (Volume) Upper-explosion point: %0,18 (Volume)

5.1. Suitable Extinguishing Media: Carbondioxide, Dry chemical dust, water spray, water, foam, protective equipment for fire-fighting purposes.

5.2. Suitable Protective Equipment for Fire-fighters: Fire-extinguishers should be equipped with personal inhalation equipment and non-flaming clothes.

5.3. Points to be considered: Collect the polluted extinguishing water separately. Do not allow the product run into sewage system and effective systems. Cool the containers with water in case of danger.

6. ACCIDENTAL RELEASE MEASURES:

6.1. Personal Precautions: Avoid inhaling. Avoid contact with skin, eye and clothes.

6.2. Environmental precautions: Do not discharge into the drains/surface waters/groundwater. Avoid leakage into sub-ground/soil.



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6.3. Methods and material for containment and cleaning up: Take up with absorbent materials (sand, sawdust, general-purpose binders, kieselguhr etc.). After taking up the materials dispose according to regulation.

7. HANDLING AND STORAGE

7.1 Handling

7.1.1. Advice on safe handling: Avoid formation of aerosol. Provide for appropriate ventilation at the work station. If needed, an appropriate suction system should be ensured.

7.1.2. Fire and Explosion Precautions: Flammable and burning sources should be eliminated.

7.2. Storage

7.2.1. Requirements for storage rooms and vessels: Close the opened vessels carefully and store it in the vertical position so as to avoid leakage. Always keep only in original container.

7.2.2. Requirements for storage: Do not store with oxidizing materials (acid, base).

7.2.3. Storage Conditions: Store the vessels with the sealed covers at ventilated and cool location. Protect it against direct heat and sun light.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION EQUIPMENT

8.1. Exposure Limits: Ensure regional ventilation system in order to control steam and fogs.

8.2. Personal Protective Equipment:

8.2.1. General Protection Precautions and Hygienic Precautions: Apply good industrial hygiene and safety. Store it away from food and nutrition materials. Wash your hands before break and after work. Take off polluted clothes immediately. Do not eat and drink during work. Store work clothes separately. Avoid inhaling steam and avoid contact with skin, eyes and clothes.

8.2.2. Protection of respiration system: Use organic gas mask and appropriate filter.

8.2.3. Hands protection: If there is a possible risk of the skin contacting with the product, for instance; using gloves in accordance with EN 374 norm will ensure sufficient protection. Conformities of protective gloves with relevant workplace should be revised



under any circumstances. (For instance; mechanical durability, suitability with the products, antistatic properties...).Regarding utilisation of gloves, storage of gloves, maintenance and replacement of the same, obey producer information and instructions. Appropriate materials:Butly rubber. Talk to glove manufacturer for testing purposes.

8.2.3. Eye Protection: Safety goggles and face mask..

8.2.4. Body protection: Light rubber clothes.

9. FİZİKSEL ve KİMYASAL ÖZELLİKLER

Physical appearance	: Liquid
Colour	: Maximum 40 haze
Odour	: Light characteristic
рН	: Approximately 7
Molecular weight	: 390 gr/mol
Molecular Formula	$: C_{24}H_{38}O_4$
Product Purity	: Minimum % 99,8
Acidity	: Maximum 0,1 (mg NaOH/g)
Boiling point	: Approximately 230°C
Flash point	: Minimum 200 °C (open vessel method)
Freezing point	: Minimum -46°C
Steam pressure	: 0,00001 mbar (50°C)
	1,8 mbar (200°C)
Density	: 0,981 – 0,986 gr/cm³(20°C)
Solubility in water	: 0,1 gr/lt (20°C)
Viscosity (Dynamic)	: 75-85 mPa*s (20°C)
Fracture Index	: 1,484 ± 0,003 (20 °C)

10. STABILITY AND REACTIVITY

10.1. Stability: No decomposition by heat10.2. Reactivity: Reaction with strong oxidising ingredients (acid and base)

10.3. Hazardous decomposition products: Hazardous decomposition products not known.

11. TOXICOLOGICAL INFORMATION

11.1. Acute Toxicity

Oral : LD50 / rat > 30000 mg/kg



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Dermal	: LD50 / rabbit> 25000 mg/kg
Skin Irritation	: Rabbit; Non-irritant (Method ECD)
Eye Irritation	: Rabbit; Non-irritant (Method OECD)
Sensitivity	: It does not allow sensitivity

11.2. Chronic toxicity:

11.2.1. Toxic for reproduction ability: There are signs that are toxic for reproduction have been found in animal experiments.

11.2.2. Carcinogenecity: There are signs of possible carcinogenic effects in animal experiments have been found. Irritating to eyes and skin.

Practical use experiences: It has a property decreasing blood pressure (tension).

12. ECOLOGICAL INFORMATION

12.1. Degradability: It is biologically-degradable with bacterias easily. (Test Method: OECD 301B, ISO 9439) (Elimination degree: % 70-80)

12.2. Biologival accumulation: Product can be accumulated in organisms.

12.3. Environmental toxicity

Acute and chronic toxicity for fishes; LC50 (96 hours) >0,67 mg/l

Acute toxicity for aquatic invertebrates; EC50 (48 hours) >0,16 mg/l

Toxicity for aquatic plants; EC50 (96 hours) >0,1 mg/l

Toxicity in micro-organisms; DIN-EN-ISO8192 >2000 mg/l

The fall of activity in activated sludge cannot be predicted at low concentrations.



Other eco-toxicological advices; do not allow it in natural water without subjecting that to chemical operation.

13. DISPOSAL CONSIDERATIONS

13.1. Disposal of waste materials: Without permission, do not discharge into water channels or sewage system. Waste code should be obeyed as prescribed by European waste materials catalogue and national regulations should be obeyed for disposal of wastes.

13.2. Disposal of package: Packages should be totally emptied and transferred in order to be disposed in accordance with law. Fully non-emptied packages should be rendered harmless in accordance with regional waste disposal and transfer organization.

14. TRANSPORT INFORMATION

14.1. Shipping Name: ARKİM DOP

14.2. Shipping: There is not any rule available preventing product to be shipped domestically or internationally by road transport, railway transport, sea or air transport.

15. REGULATORY INFORMATION

Bis (2- ethylhexyl)phthalate (DEHP) stated in list of subtances that are determined by European Chemicals Agency (ECHA) Member States Council (MSC) as Substances of very high concern (SVCH) is prohibited to be used at medical packing, textile, foodstuff and toy sectors according to Article 57c (Toxic for reproduction) of DOP.

16. OTHER INFORMATION

16.1. Resources used for preparation of safety instructions

Updated version of 67/548 and 99/45 numbered EC Directives Updated version of 2001/58 numbered EC Directives Updated version of 2000/39 numbered EC Directives ADR, RID, IMDG VE IATA current transportation regulations

Date of first issue: 01.08.2014

Issued by : SEYDİ GÜN

These details were prepared according to our current information and those do not provide safety related to characteristics. Rules and detections available should be monitored by buyer of our product under his own responsibility.