

Revision No/Date: 002/ 01.08.2014 **Pro**

Product name: DI-OCTYL ADIPATE (DOA)

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

1.1 Product Identifier

1.1.1.Commercial name : Bis-(2-Ethylhexyl) Adipate (DOA)

1.1.2. Field of use : Plasticizer

1.1.3. Producing Company: Arkim Kimya Sanayi A.Ş.

Güneşli Mimar Sinan Caddesi No : 3 Bağcılar/İSTANBUL

Telephone No: 0212 410 04 04 Fax No: 0212 410 22 05

2. COMPOSITION/INFORMATION ON INGREDIENTS:

2.1. Chemical structure : Adipic Acid Ester

2.2. Chemical Property : Plasticizer

2.3 Product Details:

2.3.1 CAS Number : 103-23-1

2.3.3 AB (EC) Number : 203-90-1

3. POSSIBLE RISKS:

3.1. Classification : Category 2 Reproductive Toxins

3.2. Hazard Warning Symbols

T : Toxic

R 60 : May affect negatively on reproduction ability.

R 61 : May give harm to the child to be newly born.



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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:

Flash point : Minimum 190 °C (open vessel method)

Inflammation limit : 377 °C

Lower-explosion limit: % 0,4 (Volume)

55.1. 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.
- 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.



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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.

88. 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.



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8.2.3. Eye Protection: Safety goggles and face mask.

8.2.4. Body protection: Light rubber clothes

9. . PHYSICAL AND CHEMICAL PROPERTIES

Physical appearance: Clear liquid

Odour : Light characteristic
Colour : Maximum 30 haze
Molecular weight : 370,57 gr/mol
Product Purity : Minimum % 99,8
pH : Approximately 7

Acidity: Maximum 0,1 (Mg NaOH/g)

Boiling point : Higher than 400°C

Flash point : Minimum 190 °C (open vessel)

Freezing point : Minimum -67 °C Steam pressure : 0,00003 Pa (20 °C)

Density : $0.924-0.930 \text{ gr/cm}^3 (20^{\circ}C)$

Solubility in water : 0,003 gr/lt (20°C) Fracture Index : 1,440 - 1,448 (20°C) Viscosity (Dynamic) : 15-25 mPa*s (20°C)

10. STABILITY AND REACTIVITY

10.1. Stability : No decomposition by heat

10.2. 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 / Rabbit> 20000 mg/kg

Skin Irritation : Non-irritant.

Eye Irritation : Non-irritant.

Sensitivity : No risk of sensitivity



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12. ECOLOGICAL INFORMATION

12.1 Biologically accumulation: Product can accumulate in organisms.

12.2. Environmental toxicity:

Acute toxicity, aquatic invertebrates; EC50 (48 hours) >0,65 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: Dioctyl phthalate
- 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.



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15. REGULATORY INFORMATION

16. OTHER INFORMATION

16.1. Product should be only used as industrial raw matter.

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: 01.09.2012

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Issued by: Prof. Dr. Murat Teker

Prof. Dr. Murat TEKER
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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.