



# SAFETY DATA SHEET

## DIOCTYL ADIPATE

### 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: DIOCTYL ADIPATE

Recommended use: Chemical for industrial

Manufacturer/Supplier: MODERN CHEMICAL CO.,LTD.  
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### 2. HAZARDS IDENTIFICATION

#### Label elements

Pictogram



Signal word: The product does not require a hazard warning label in accordance with GHS criteria.

#### Hazard statement(s):

1.) The product does not require a hazard warning label in accordance with GHS criteria.

#### Precautionary statement(s):

1.) The product does not require a hazard warning label in accordance with GHS criteria.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonym:** Adipic acid di(2-ethylhexyl) ester, DOA, DOA Plasticizer

Ingredients	% (w/w)	CAS NO.
DIOCTYL ADIPATE	100	103-23-1



#### 4. FIRST AID MEASURES

- General advice:** Remove contaminated clothing.
- Inhalation:** Allow the victim to rest in a well ventilated area. Seek medical attention.
- Skin contact:** Wash thoroughly with soap and water.
- Eye contact:** Wash affected eyes for at least 15 minutes under running water with eyelids held open.
- Ingestion:** Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

#### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

Carbon dioxide, dry extinguishing media, water spray, water, foam, water fog.

**Unsuitable Extinguishing Media:**

Do not use water jet.

**Specific hazards arising from Chemicals:**

No data available.

**Special protective equipment for fire-fighters:**

Wear a self-contained breathing apparatus.

#### 6. ACCIDENTAL RELEASE MEAS

**Precautions:** Handle in accordance with good industrial hygiene and safety practice.

**Environmental precautions:** Do not empty into drains.

**Methods and Material for Containment and Clean Up:**

**Small Spill:** Absorb with an inert material and put the spilled material in an appropriate waste disposal.

**Large Spill:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.



## 7. HANDLING AND STORAGE

### Precautions for Safe Handling & Product Transfer:

Keep locked up. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapour/spray. Avoid contact with eyes. Wear suitable protective clothing in case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.

### Conditions for Safe Storage & Unsuitable Materials:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Carcinogenic, teratogenic or mutagenic materials should be stored in a separate locked safety storage cabinet or room.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Limits:** No data available.

**Appropriate Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### Individual Protection Measures

**Respiratory protection:** Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds. (boiling point  $>65^{\circ}\text{C}$ , e.g. EN14387 Type A).

**Hand protection:** Suitable chemical resistant safety gloves (EN 374) also with prolonged or direct contact.

**Eye protection:** Safety glasses with side-shields (e.g. EN 166).

**Skin and body protections:** Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit.

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form, Color and Odor :</b> liquid, Colorless , Aromatic (slight)	<b>Evaporation rate :</b> N/A
<b>Melting Point :</b> $-67^{\circ}\text{C}$	<b>Specific gravity :</b> $0.924 - 0.926 \text{ g/cm}^3$ at $20^{\circ}\text{C}$
<b>pH :</b> N/D	<b>Solubility in water :</b> $< 0.1 \text{ mg/l}$ at $20^{\circ}\text{C}$ / $-0.8 \text{ mg/l}$ at $22^{\circ}\text{C}$



<b>Boiling point :</b> 210 - 417 °C	<b>Viscosity :</b> 13 - 15 mPa.s at 20°C
<b>Vapour pressure :</b> 0.021 mbar at 100 °C	<b>Vapour density (air=1) :</b> 12.8
<b>Lower explosive limits :</b> N/A	<b>Upper explosive limits :</b> N/A
<b>Auto-ignition temperature :</b> 350 - 377 °C	<b>Flash point:</b> 195 - 199 °C
<b>Odour threshold:</b> N/A	<b>Flammability (solid, gas):</b> does not ignite
<b>Decomposition temperature:</b> N/A	<b>Solubility in other solvents:</b> organic solvent, methanol, diethyl ether, n-octanol, acetone
<b>n-octanol/water partition coefficient (log P<sub>ow</sub>):</b> 8.94 at 25°C	

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Under normal condition, the material is stable.
<b>Reactions:</b>	No data available.
<b>Possibility of Hazardous Reactions:</b>	Can react with strong oxidizing agents, & also reacts with Acids.
<b>Conditions to avoid:</b>	No data available.
<b>Materials to avoid:</b>	No data available.
<b>Hazardous decomposition products:</b>	No data available.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity:</b>	LD50 (Oral, rat): 9100 - 14800 mg/kg LD50 (Dermal, rabbit): >8660 mg/kg LC50 (Inhalation, rat): >5.7 mg/l - 4h
<b>Sensitization:</b>	Not irritating to the skin. Not irritation to the eyes.
<b>Chronic toxicity:</b>	No mutagenic effect was found in various tests with bacteria, microorganism and mammalian cell culture. The substance was not mutagenic in studies with mammals. The results of animal studies gave no indication of a fertility impairing effect. In animal studies the substance did not cause malformations. Carcinogenicity: IARC Not classifiable as a human carcinogen.
<b>Further toxicological information:</b>	No data available.



## 12. ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish: LC50 - *Oncorhynchus mykiss*: > 0.78 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 - *Daphnia magna*: > 500 mg/l - 48 h

LC50 - *Eisenia foetida*: >10000 mg/kg -7 day

Toxicity to algae: EC50 - *Scenedesmus subspicalus*: > 500 mg/l - 72 h

Toxicity Bacterial: EC50 - *Pseudomonas putida*: > 10000 mg/l - 0.5 h

EC20 - Activated sludge, domestic, aerobic: >350 mg/l

Biodegradability Remarks: Possibly hazardous short term degradation products are not likely.

However, long term degradation products may arise. The product itself and its products of degradation are not toxic.

Bioaccumulative Potential: Bioconcentration factor: 27 (28d), *Lepomis macrochirus* (measured). Does not significantly accumulate in organisms.

Mobility: No data available.

Affected in any other way: Do not release untreated into natural waters.

## 13. DISPOSAL CONSIDERATIONS

**Material Disposal:** Must be dumped or incinerated in accordance with accordance with local regulations. A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage.

**Container Disposal:** Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

## 14. TRANSPORT INFORMATION

### ADR/RID

Not classified as a dangerous good under transport regulations.

### IMGD

Not a dangerous goods.

Marine pollutant: No



## IATA/ICAO

Not classified as a dangerous good under transport regulations.

## ADNR

Not classified as a dangerous good under transport regulations.

## 15. REGULATORY INFORMATION

### Regulations of the European union (Labelling) / National legislation/Regulations

EC – Number: 203-090-1

as in Annex VI of Directive 67/548/EEC:

The product does not require a hazard warning label in accordance with EC Directives.

Other regulations

### **SARA 302 Components**

SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

### **SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **SARA 311/312 Hazards**

Acute Health Hazard

### **CERCLA**

No Chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA

### **California Prop 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## 16. Other Information

Modern Chemical Co.,Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensive or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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