





# Material Safety Data Sheet

| NFPA  | HMIS  | Personal Protective Equipment |   |             |   |            |   |   |
|---|---|-------------------------------|---|-------------|---|------------|---|---|
|  | <table><tr><td>Health Hazard</td><td>2</td></tr><tr><td>Fire Hazard</td><td>1</td></tr><tr><td>Reactivity</td><td>0</td></tr></table> | Health Hazard                 | 2 | Fire Hazard | 1 | Reactivity | 0 | <div></div> <div>See Section 15.</div> |
| Health Hazard   | 2   |                               |   |             |   |            |   |   |
| Fire Hazard   | 1   |                               |   |             |   |            |   |   |
| Reactivity  | 0   |                               |   |             |   |            |   |   |

| Section 1. Chemical Product and Company Identification |  |   | Page Number: 1                       |
|--|--|---|--------------------------------------|
| Common Name/<br>Trade Name                             | Dioctyl Adipate  | Catalog<br>Number(s).   | D1246                                |
|  |  | CAS#  | 103-23-1                             |
| Manufacturer   | SPECTRUM CHEMICAL MFG. CORP.<br>14422 S. SAN PEDRO STREET<br>GARDENA, CA 90248 | RTECS   | AU9700000                            |
|  |  | TSCA  | TSCA 8(b) inventory: Dioctyl Adipate |
| Commercial Name(s)                                     | Not available.   | CI#   | Not available.                       |
| Synonym  | Bis(2-Ethylhexyl) Adipate  | <b><u>IN CASE OF EMERGENCY</u></b><br><b><u>CHEMTREC (24hr) 800-424-9300</u></b><br><br>CALL (310) 516-8000 |                                      |
| Chemical Name  | Dioctyl Adipate  |   |                                      |
| Chemical Family  | Not available.   |   |                                      |
| Chemical Formula                                       | C22-H42-O4   |   |                                      |
| Supplier   | SPECTRUM CHEMICAL MFG. CORP.<br>14422 S. SAN PEDRO STREET<br>GARDENA, CA 90248 |   |                                      |

| Section 2. Composition and Information on Ingredients |  |                          |                           |                           |             |
|---|--|--------------------------|---------------------------|---------------------------|-------------|
|   |  | Exposure Limits          |                           |                           |             |
| Name  | CAS #  | TWA (mg/m <sup>3</sup> ) | STEL (mg/m <sup>3</sup> ) | CEIL (mg/m <sup>3</sup> ) | % by Weight |
| 1) Dioctyl Adipate                                    | 103-23-1   |                          |                           |                           | 100         |
| Toxicological Data on Ingredients                     | Dioctyl Adipate:<br>ORAL (LD50): Acute: 9100 mg/kg [Rat]. 15000 mg/kg [Mouse]. |                          |                           |                           |             |

| Section 3. Hazards Identification |  |
|-----------------------------------|--|
| Potential Acute Health Effects    | Hazardous in case of eye contact (irritant), of inhalation (lung irritant).  |
| Potential Chronic Health Effects  | <b>CARCINOGENIC EFFECTS:</b> 3 (Not classifiable for human.) by IARC.<br><b>MUTAGENIC EFFECTS:</b> Not available.<br><b>TERATOGENIC EFFECTS:</b> Not available.<br><b>DEVELOPMENTAL TOXICITY:</b> Classified Development toxin [POSSIBLE].<br>The substance is toxic to blood, the reproductive system, liver, upper respiratory tract.<br>Repeated or prolonged exposure to the substance can produce target organs damage. |

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#### **Section 4. First Aid Measures**

|                             |   |
|-----------------------------|---|
| <b>Eye Contact</b>          | Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.  |
| <b>Skin Contact</b>         | No known effect on skin contact, rinse with water for a few minutes.  |
| <b>Serious Skin Contact</b> | Not available.  |
| <b>Inhalation</b>           | Allow the victim to rest in a well ventilated area. Seek immediate medical attention.   |
| <b>Serious Inhalation</b>   | Not available.  |
| <b>Ingestion</b>            | 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. |
| <b>Serious Ingestion</b>    | Not available.  |

#### **Section 5. Fire and Explosion Data**

|  |   |
|--|---|
| <b>Flammability of the Product</b>                         | May be combustible at high temperature.   |
| <b>Auto-Ignition Temperature</b>                           | Not available.  |
| <b>Flash Points</b>  | CLOSED CUP: 206°C (402.8°F).  |
| <b>Flammable Limits</b>                                    | Not available.  |
| <b>Products of Combustion</b>                              | These products are carbon oxides (CO, CO2).   |
| <b>Fire Hazards in Presence of Various Substances</b>      | Not available.  |
| <b>Explosion Hazards in Presence of Various Substances</b> | Risks of explosion of the product in presence of mechanical impact: Not available.<br>Risks of explosion of the product in presence of static discharge: Not available. |
| <b>Fire Fighting Media and Instructions</b>                | SMALL FIRE: Use DRY chemical powder.<br>LARGE FIRE: Use water spray, fog or foam. Do not use water jet.   |
| <b>Special Remarks on Fire Hazards</b>                     | Not available.  |
| <b>Special Remarks on Explosion Hazards</b>                | Not available.  |

#### **Section 6. Accidental Release Measures**

|                    |  |
|--------------------|--|
| <b>Small Spill</b> | Absorb with an inert material and put the spilled material in an appropriate waste disposal.   |
| <b>Large Spill</b> | 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. |

#### **Section 7. Handling and Storage**

|                    |   |
|--------------------|---|
| <b>Precautions</b> | 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. |
| <b>Storage</b>     | 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.  |

**Section 8. Exposure Controls/Personal Protection**

|   |   |
|---|---|
| <b>Engineering Controls</b>                         | 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.              |
| <b>Personal Protection</b>                          | Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.  |
| <b>Personal Protection in Case of a Large Spill</b> | Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. |
| <b>Exposure Limits</b>                              | Not available.  |

**Section 9. Physical and Chemical Properties**

|                                      |   |              |                     |
|--------------------------------------|---|--------------|---------------------|
| <b>Physical state and appearance</b> | Liquid.   | <b>Odor</b>  | Aromatic. (Slight.) |
| <b>Molecular Weight</b>              | 370.58 g/mole   | <b>Taste</b> | Not available.      |
| <b>pH (1% soln/water)</b>            | Not available.  | <b>Color</b> | Amber. (Light.)     |
| <b>Boiling Point</b>                 | 214°C (417.2°F)   |              |                     |
| <b>Melting Point</b>                 | -67°C (-88.6°F)   |              |                     |
| <b>Critical Temperature</b>          | Not available.  |              |                     |
| <b>Specific Gravity</b>              | Not available.  |              |                     |
| <b>Vapor Pressure</b>                | Not available.  |              |                     |
| <b>Vapor Density</b>                 | 12.8 (Air = 1)  |              |                     |
| <b>Volatility</b>                    | Not available.  |              |                     |
| <b>Odor Threshold</b>                | Not available.  |              |                     |
| <b>Water/Oil Dist. Coeff.</b>        | Not available.  |              |                     |
| <b>Ionicity (in Water)</b>           | Not available.  |              |                     |
| <b>Dispersion Properties</b>         | See solubility in water, methanol, diethyl ether, n-octanol, acetone. |              |                     |
| <b>Solubility</b>                    | Soluble in methanol, diethyl ether, n-octanol, acetone.               |              |                     |

**Section 10. Stability and Reactivity Data**

|  |   |
|--|---|
| <b>Stability</b>                               | The product is stable.                        |
| <b>Instability Temperature</b>                 | Not available.                                |
| <b>Conditions of Instability</b>               | Not available.                                |
| <b>Incompatibility with various substances</b> | Highly reactive with oxidizing agents, acids. |
| <b>Corrosivity</b>                             | Not available.                                |
| <b>Special Remarks on Reactivity</b>           | Not available.                                |
| <b>Special Remarks on Corrosivity</b>          | Not available.                                |
| <b>Polymerization</b>                          | No.   |

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**Section 11. Toxicological Information**

**Routes of Entry** Eye contact. Inhalation. Ingestion.

**Toxicity to Animals** Acute oral toxicity (LD50): 9100 mg/kg [Rat].

**Chronic Effects on Humans** **CARCINOGENIC EFFECTS:** 3 (Not classifiable for human.) by IARC.  
**DEVELOPMENTAL TOXICITY:** Classified Development toxin [POSSIBLE].  
The substance is toxic to blood, the reproductive system, liver, upper respiratory tract.

**Other Toxic Effects on Humans** Hazardous in case of inhalation (lung irritant).

**Special Remarks on Toxicity to Animals** Not available.

**Special Remarks on Chronic Effects on Humans** Not available.

**Special Remarks on other Toxic Effects on Humans** Not available.

**Section 12. Ecological Information**

**Ecotoxicity** Not available.

**BOD5 and COD** Not available.

**Products of Biodegradation** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation** Not available.

**Section 13. Disposal Considerations**

**Waste Disposal**

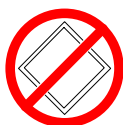
**Section 14. Transport Information**

**DOT Classification** Not a DOT controlled material (United States).

**Identification** Not applicable.

**Special Provisions for Transport** Not applicable.

**DOT (Pictograms)**



**Section 15. Other Regulatory Information and Pictograms**

**Federal and State Regulations**

Pennsylvania RTK: Diocetyl Adipate  
 Massachusetts RTK: Diocetyl Adipate  
 New Jersey: Diocetyl Adipate  
 TSCA 8(b) inventory: Diocetyl Adipate  
 TSCA 8(d) H and S data reporting: Diocetyl Adipate

**California Proposition 65 Warnings**

**Other Regulations**

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).  
 EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications**

**WHMIS (Canada)** CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

**DSCL (EEC)**

R36/37- Irritating to eyes and respiratory system.  
 R40- Possible risks of irreversible effects.  
 R63- Possible risk of harm to the unborn child.

**HMIS (U.S.A.)**

|                     |   |
|---------------------|---|
| Health Hazard       | 2 |
| Fire Hazard         | 1 |
| Reactivity          | 0 |
| Personal Protection | h |

**National Fire Protection Association (U.S.A.)**

|        |   |   |   |                 |
|--------|---|---|---|-----------------|
| Health | 0 | 1 | 0 | Flammability    |
|        |   |   |   | Reactivity      |
|        |   |   |   | Specific hazard |

**WHMIS (Canada) (Pictograms)**



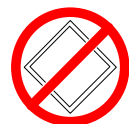
**DSCL (Europe) (Pictograms)**



**TDG (Canada) (Pictograms)**



**ADR (Europe) (Pictograms)**



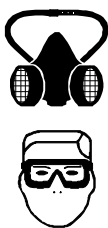
**Protective Equipment**



Gloves.



Lab coat.



Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Splash goggles.

### Section 16. Other Information

**MSDS Code** D3473

**References** Not available.

**Other Special Considerations** Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

Printed 9/12/2006.

CALL (310) 516-8000

#### Notice to Reader

*All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.*