

# SAFETY DATA SHEET

## 1. PRODUCT

### 1.1 Product identifiers

Name: Dimethyl adipate

CAS-No.: 627-93-0

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute aquatic toxicity (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 GHS Label elements, including precautionary statements

|                            |  |
|----------------------------|--|
| Pictogram                  | N/A  |
| Signal word                | none   |
| Hazard statement(s)        | H402 Harmful to aquatic life.  |
| Precautionary statement(s) | P273 Avoid release to the environment.<br>P501 Dispose of contents/ container to an approved waste disposal plant. |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No data available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Formula:  $C_8H_{14}O_4$   
Molecular weight: 174.19 g/mol  
CAS-No.: 627-93-0  
EC-No.: 211-020-6

#### Hazardous components

| Component        | Classification        | Concentration |
|------------------|-----------------------|---------------|
| Dimethyl adipate | Aquatic Acute 3; H402 | <= 100 %      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

|   |
|---|
| <b>General advice</b>   |
| Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.       |
| <b>If inhaled</b>   |
| If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |

|   |
|---|
| <b>In case of skin contact</b>  |
| Wash off with soap and plenty of water. Consult a physician.  |
| <b>In case of eye contact</b>   |
| Flush eyes with water as a precaution.  |
| <b>If swallowed</b>   |
| Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### 4.2 Indication of any immediate medical attention and special treatment needed

No data available

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### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

Carbon oxides

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### 5.4 Further information

No data available

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### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

For personal protection see section 8.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

#### 6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For disposal see section 13.

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### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

For precautions see section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): Combustible liquids

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

|                                   |  |
|-----------------------------------|--|
| Eye/face protection               | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  |
| Skin protection                   | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. |
| Body Protection                   | Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.   |
| Respiratory protection            | Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).  |
| Control of environmental exposure | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.   |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|  |  |
|--|--|
| Appearance                                   | Form: clear, liquid<br>Colour: colourless                          |
| Odour  | ester-like   |
| Odour Threshold                              | No data available  |
| pH   | No data available  |
| Melting point/freezing point                 | Melting point/range: 8 °C (46 °F) - lit.                           |
| Initial boiling point and boiling range      | 109 - 110 °C (228 - 230 °F) at 19 hPa (14 mmHg) - lit.             |
| Flash point                                  | 110 °C (230 °F) - closed cup                                       |
| Evaporation rate                             | No data available  |
| Flammability (solid, gas)                    | No data available  |
| Upper/lower flammability or explosive limits | Upper explosion limit: 8.1 %(V)<br>Lower explosion limit: 0.8 %(V) |
| Vapour pressure                              | 0.08 hPa (0.06 mmHg) at 20 °C (68 °F)                              |
| Vapour density                               | No data available  |
| Relative density                             | 1.062 g/mL at 20 °C (68 °F)  |
| Water solubility                             | 25 g/l at 20 °C (68 °F)  |
| Partition coefficient: n-octanol/water       | log Pow: 1.03 at 25 °C (77 °F)                                     |
| Auto-ignition temperature                    | 400 °C (752 °F) at 1,013 hPa (760 mmHg)                            |
| Decomposition temperature                    | No data available  |
| Viscosity                                    | No data available  |
| Explosive properties                         | No data available  |
| Oxidizing properties                         | No data available  |

### 9.2 Other safety information

Surface tension: 35.86 mN/m at 20 °C (68 °F)

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

acids, Bases, Oxidizing agents, Reducing agents

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

|  |
|--|
| <b>Acute toxicity</b>  |
| LD50 Oral - Rat - male and female - > 5,000 mg/kg<br>Inhalation: No data available<br>LD50 Dermal - Rabbit - male and female - > 1,000 mg/kg<br>(OECD Test Guideline 402)<br>No data available   |
| <b>Skin corrosion/irritation</b>   |
| Skin - Rabbit<br>Result: No skin irritation - 4 h  |
| <b>Serious eye damage/eye irritation</b>   |
| Eyes - Rabbit<br>Result: No eye irritation   |
| <b>Respiratory or skin sensitisation</b>   |
| No data available  |
| <b>Germ cell mutagenicity</b>  |
| OECD Test Guideline 474<br>Rat - male and female<br>Result: negative   |
| <b>Carcinogenicity</b>   |
| No data available<br>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.<br>ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.<br>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.<br>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| <b>Reproductive toxicity</b>   |
| Reproductive toxicity - Rat - Intraperitoneal<br>Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).<br>Developmental Toxicity - Rat - Intraperitoneal<br>Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Other developmental abnormalities.   |
| <b>Specific target organ toxicity -single exposure</b>   |
| No data available  |
| <b>Specific target organ toxicity -repeated exposure</b>   |

|   |
|---|
| No data available   |
| <b>Aspiration hazard</b>  |
| No data available   |
| <b>Additional Information</b>   |
| RTECS: AV1645000<br>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.<br>Stomach - Irregularities - Based on Human Evidence<br>Stomach - Irregularities - Based on Human Evidence |

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

|   |   |
|---|---|
| Toxicity to fish                                    | No data available   |
| Toxicity to daphnia and other aquatic invertebrates | static test EC50 - Daphnia magna (Water flea) - 72 mg/l - 48 h (OECD Test Guideline 202)    |
| Toxicity to algae                                   | static test - Pseudokirchneriella subcapitata - > 100 mg/l - 72 h (OECD Test Guideline 201) |
| Toxicity to bacteria                                | No data available   |

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

No data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

|  |
|--|
| <b>Product</b>   |
| Offer surplus and non-recyclable solutions to a licensed disposal company. |
| <b>Contaminated packaging</b>  |
| Dispose of as unused product.  |

## 14. TRANSPORT INFORMATION

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

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## 15. REGULATORY INFORMATION

### SARA 302 Components

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

### SARA 313 Components

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

Chronic Health Hazard

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know Components

| Component        | CAS-No.  | Revision Date |
|------------------|----------|---------------|
| Dimethyl adipate | 627-93-0 |               |

### New Jersey Right To Know Components

| Component        | CAS-No.  | Revision Date |
|------------------|----------|---------------|
| Dimethyl adipate | 627-93-0 |               |

### 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.

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## 16. OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute Acute aquatic toxicity

H402 Harmful to aquatic life.

### HMIS Rating

Health hazard: 0

Chronic Health Hazard: \*

Flammability: 1

Physical Hazard 0

### NFPA Rating

Health hazard: 0

Fire Hazard: 1

Reactivity Hazard: 0

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