

**SAFETY DATA SHEET** according  
to GB/T 16483 and GB/T 17519Version 8.0  
Revision Date 21.04.2022  
Print Date 28.09.2023  
Date of first issue 21.04.2022SDS No. Supelco - 442540  
Product Number Supelco - 442540

## Decylamine

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Decylamine

Product Number : 442540  
Brand : Supelco  
CAS-No. : 2016-57-1**1.2 Details of the supplier of the safety data sheet**Company : Sigma-Aldrich (Shanghai) Trading Co.Ltd.  
509 Renqing Road  
Zhangjiang High Tech East Park, Pudong  
SHANGHAI  
201201 SHANGHAI  
CHINA西格玛奥德里奇（上海）贸易有限公司  
上海市浦东新区仁庆路 509 号 10 幢  
邮政编码：201201Merck KGaA  
64271 Darmstadt  
Germany  
Phone: +49 6151 72-0Telephone : +86 21 6141-5566  
Fax : +86 21 6141-5567**1.3 Emergency telephone**

Emergency Phone # : +86 532 83889090

**1.4 Relevant identified uses of the substance or mixture and uses advised against**Identified uses : For R&D use only. Not for pharmaceutical, household or other  
uses.**SECTION 2: Hazards identification****Summary of emergency**

clear, liquid colorless Combustible liquid., Toxic if swallowed or in contact with skin.,

Causes severe skin burns and eye damage., Very toxic to aquatic life with long lasting effects. First aiders need to protect themselves., Show this material safety data sheet to the doctor in attendance. After inhalation: fresh air. Call in physician. In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower., Call a physician immediately. After eye contact: rinse out with plenty of water., Immediately call in ophthalmologist., Remove contact lenses. If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible., Do not attempt to neutralise. Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

## 2.1 GHS Classification

Flammable liquids (Category 4), H227  
 Acute toxicity, Oral (Category 3), H301  
 Acute toxicity, Dermal (Category 3), H311  
 Skin corrosion/irritation (Category 1B), H314  
 Serious eye damage/eye irritation (Category 1), H318  
 Short-term (acute) aquatic hazard (Category 1), H400  
 Long-term (chronic) aquatic hazard (Category 1), H410

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

## 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statement(s)

|             |   |
|-------------|---|
| H227        | Combustible liquid.                                   |
| H301 + H311 | Toxic if swallowed or in contact with skin.           |
| H314        | Causes severe skin burns and eye damage.              |
| H410        | Very toxic to aquatic life with long lasting effects. |

Precautionary statement(s)

Prevention

|      |   |
|------|---|
| P210 | Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.           |
| P264 | Wash skin thoroughly after handling.  |
| P270 | Do not eat, drink or smoke when using this product.                           |
| P273 | Avoid release to the environment.   |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |

Response

|                           |  |
|---------------------------|--|
| P301 + P310 + P330        | IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.   |
| P301 + P330 + P331        | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.   |
| P303 + P361 + P353        | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.   |
| P304 + P340 + P310        | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.   |
| P305 + P351 + P338 + P310 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. |

|                                |  |
|--------------------------------|--|
| P361 + P364                    | Take off immediately all contaminated clothing and wash it before reuse.             |
| P370 + P378                    | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. |
| P391                           | Collect spillage.  |
| Storage<br>P403 + P235<br>P405 | Store in a well-ventilated place. Keep cool.<br>Store locked up.                     |
| Disposal<br>P501               | Dispose of contents/ container to an approved waste disposal plant.                  |

### 2.3 Physical and chemical hazards

H227 Combustible liquid.

### 2.4 Health hazards

H301 Toxic if swallowed.  
H311 Toxic in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.

### 2.5 Environmental hazards

H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

### 2.6 Other hazards - none

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## SECTION 3: Composition/information on ingredients

Substance / Mixture : Substance

### 3.1 Substances

Synonyms : 1-Aminodecane

Formula : C<sub>10</sub>H<sub>23</sub>N

Molecular weight : 157.30 g/mol

CAS-No. : 2016-57-1

EC-No. : 217-957-7

#### Hazardous ingredients

| Component         | Classification  | Concentration |
|-------------------|---|---------------|
| <b>decylamine</b> | Flammable liquids<br>Category 4; Acute toxicity<br>Category 3; Skin<br>corrosion/irritation<br>Category 1B; Serious eye<br>damage/eye irritation<br>Category 1; Short-term<br>(acute) aquatic hazard<br>Category 1; Long-term<br>(chronic) aquatic hazard<br>Category 1; H227, H301,<br>H311, H314, H318, H400,<br>H410 | <= 100 %      |

|  |  |  |
|--|--|--|
|  | M-Factor - Aquatic Acute:<br>1<br>M-Factor - Aquatic<br>Chronic: 1 |  |
|--|--|--|

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

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

### 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

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

No data available

### 4.4 Notes to physician

No data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

### **5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6: Accidental release measures**

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

### **6.4 Reference to other sections**

For disposal see section 13.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

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

#### **Storage conditions**

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Store at room temperature. Store under inert gas.

#### **Storage class**

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

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## **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### 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). Tightly fitting safety goggles

#### 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.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Body Protection

protective clothing

#### Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Control of environmental exposure

Do not let product enter drains.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |   |  |
|---|--|
| a) Physical state                               | clear, liquid  |
| b) Color  | colorless  |
| c) Odor   | No data available  |
| d) Melting point/freezing point                 | Melting point/range: 12 - 14 °C - lit.   |
| e) Initial boiling point and boiling range      | 216 - 218 °C - lit.  |
| f) Flammability (solid, gas)                    | No data available  |
| g) Upper/lower flammability or explosive limits | No data available  |
| h) Flash point                                  | 89 °C - closed cup   |
| i) Autoignition temperature                     | No data available  |
| j) Decomposition temperature                    | No data available  |
| k) pH   | No data available  |
| l) Viscosity                                    | Viscosity, kinematic: No data available<br>Viscosity, dynamic: No data available |
| m) Water solubility                             | 0.08 g/l at 20 °C - (Lit.)   |
| n) Partition coefficient: n-octanol/water       | No data available  |
| o) Vapor pressure                               | No data available  |
| p) Density                                      | 0.787 g/cm <sup>3</sup> at 25 °C - lit.  |
| Relative density                                | No data available  |
| q) Relative vapor density                       | No data available  |
| r) Particle characteristics                     | No data available  |
|   |  |
| s) Explosive properties                         | No data available  |
| t) Oxidizing properties                         | No data available  |

### 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

## 10.2 Possibility of hazardous reactions

No data available

## 10.3 Conditions to avoid

Strong heating.

## 10.4 Incompatible materials

Strong oxidizing agents, acids, Acid chlorides, Acid anhydrides

## 10.5 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 280 mg/kg

Remarks: (RTECS)

Inhalation: No data available

LD50 Dermal - Rabbit - 350 mg/kg

Remarks: (RTECS)

#### Skin corrosion/irritation

Skin - Rabbit

Result: Open irritation test - 24 h

(Draize Test)

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

#### Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

No data available

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

### 11.2 Additional Information

RTECS: HD6475000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1.04 mg/l - 96 h  
Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0.58 mg/l - 48 h  
Remarks: (ECOTOX Database)

### 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 Endocrine disrupting properties

No data available

### 12.7 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 2922

IMDG: 2922

IATA-DGR: 2922

### 14.2 UN proper shipping name

ADR/RID: CORROSIVE LIQUID, TOXIC, N.O.S. (decylamine)

IMDG: CORROSIVE LIQUID, TOXIC, N.O.S. (decylamine)

IATA-DGR: Corrosive liquid, toxic, n.o.s. (decylamine)

### 14.3 Transport hazard class(es)

ADR/RID: 8 (6.1)

IMDG: 8 (6.1)

IATA-DGR: 8 (6.1)

### 14.4 Packaging group

ADR/RID: III

IMDG: III

IATA-DGR: III

### 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA-DGR: no

### 14.6 Special precautions for user

Based on chemical properties, choose appropriate tools and conditions of transport.

Transporting tools shall be equipped with appropriate and sufficient firefighting equipment

and emergency leaking installations. If transporting by road, please go along the specified route.

#### **14.7 Incompatible materials**

Strong oxidizing agents, acids, Acid chlorides, Acid anhydrides

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### **SECTION 15: Regulatory information**

#### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

##### **National regulatory information**

##### **Other regulations**

Please pay attention on the waste treatment should also comply with local regulations requirement.

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### **SECTION 16: Other information**

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

|      |   |
|------|---|
| H227 | Combustible liquid.                                   |
| H301 | Toxic if swallowed.                                   |
| H311 | Toxic in contact with skin.                           |
| H314 | Causes severe skin burns and eye damage.              |
| H318 | Causes serious eye damage.                            |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |

#### **Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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