

Avanti Polar Lipids, Inc. 700 Industrial Park Drive, Alabaster, AL 35007, USA • (800) 227-0651 • (205) 663-2494  
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## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifiers

Product name : 25,26,26,26,27,27,27-heptadeuteriocholest-5-en-3 $\beta$ -ol (9Z-octadecenoate)

Product Number : 700185M

Brand : AVANTI

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

Identified uses : Laboratory chemicals, Synthesis of substances

### 1.3 Details of the supplier of the safety data sheet

Company : Avanti Polar Lipids, INC  
 700 Industrial Park Drive  
 Alabaster, AL 35007  
 United States of America

Telephone : (205) 663-2494

Fax : (205) 663-0756

### 1.4 Emergency telephone number

Emergency Phone # : +1 703-741-5970 / 1800-424-9300(CHEMTREC)

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

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

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

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



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H336

May cause drowsiness or dizziness.

H351

Suspected of causing cancer.

H402

Harmful to aquatic life.

Precautionary statement(s)

P201

Obtain special instructions before use.

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P202               | Do not handle until all safety precautions have been read and understood.                                                        |
| P261               | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.                                                                           |
| P264               | Wash skin thoroughly after handling.                                                                                             |
| P271               | Use only outdoors or in a well-ventilated area.                                                                                  |
| P273               | Avoid release to the environment.                                                                                                |
| P280               | Wear protective gloves/ protective clothing/ eye protection/ face protection.                                                    |
| P302 + P352        | IF ON SKIN: Wash with plenty of soap and water.                                                                                  |
| P304 + P340 + P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.       |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313        | IF exposed or concerned: Get medical advice/ attention.                                                                          |
| P332 + P313        | If skin irritation occurs: Get medical advice/ attention.                                                                        |
| P337 + P313        | If eye irritation persists: Get medical advice/ attention.                                                                       |
| P362               | Take off contaminated clothing and wash before reuse.                                                                            |
| P403 + P233        | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| P405               | Store locked up.                                                                                                                 |
| P501               | Dispose of contents/ container to an approved waste disposal plant.                                                              |

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none**

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**  
 Synonyms : 18:1 Chol (D7) ester

**Hazardous components**

| Component                 | Classification                                                                                  | Concentration |
|---------------------------|-------------------------------------------------------------------------------------------------|---------------|
| <b>Methylene chloride</b> | Skin Irrit. 2; Eye Irrit. 2A; Carc. 2; STOT SE 3; Aquatic Acute 3; H315, H319, H336, H351, H402 | 90 - 100 %    |

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

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**4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

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

#### 4.3 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

No data available

#### 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

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

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

Soak up with inert absorbent material and dispose of as hazardous waste. 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

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

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. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature -25 - -15 °C

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

#### 7.3 Specific end use(s)

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

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### Components with workplace control parameters

| Component          | CAS-No. | Value                                                                                                                              | Control parameters | Basis                                   |
|--------------------|---------|------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------|
|                    | Remarks | Potential Occupational Carcinogen<br>See Appendix A                                                                                |                    |                                         |
| Methylene chloride | 75-09-2 | TWA                                                                                                                                | 50.000000 ppm      | USA. ACGIH Threshold Limit Values (TLV) |
|                    |         | Central Nervous System impairment<br>Carboxyhemoglobinemia<br>Substances for which there is a Biological Exposure Index or Indices |                    |                                         |

|  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |      | (see BEI® section)<br>Confirmed animal carcinogen with unknown relevance to humans                                                                                                                                                                                                                                                                                                                                                                             |
|  | TWA  | 50 ppm<br>USA. ACGIH Threshold Limit Values (TLV)                                                                                                                                                                                                                                                                                                                                                                                                              |
|  |      | Central Nervous System impairment<br>Carboxyhemoglobinemia<br>Substances for which there is a Biological Exposure Index or Indices (see BEI® section)<br>Confirmed animal carcinogen with unknown relevance to humans                                                                                                                                                                                                                                          |
|  |      | Substance listed; for more information see OSHA document 1910.1052                                                                                                                                                                                                                                                                                                                                                                                             |
|  |      | Substance listed; for more information see OSHA document 1910.1052                                                                                                                                                                                                                                                                                                                                                                                             |
|  |      | See Table Z-2                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|  | PEL  | 25.000000 ppm<br>OSHA Specifically Regulated Chemicals/Carcinogens                                                                                                                                                                                                                                                                                                                                                                                             |
|  |      | 1910.1052<br>This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment. Methylene chloride (MC) means an organic compound with chemical formula, CH <sub>2</sub> Cl <sub>2</sub> . Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole<br>OSHA specifically regulated carcinogen |
|  | STEL | 125.000000 ppm<br>OSHA Specifically Regulated Chemicals/Carcinogens                                                                                                                                                                                                                                                                                                                                                                                            |
|  |      | 1910.1052<br>This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment. Methylene chloride (MC) means an organic compound with chemical formula, CH <sub>2</sub> Cl <sub>2</sub> . Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole<br>OSHA specifically regulated carcinogen |
|  | PEL  | 25 ppm<br>87 mg/m <sup>3</sup><br>California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                                                                                                                                                                                                                                                                                                                      |
|  |      | see section 5202                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|  | STEL | 125 ppm<br>435 mg/m <sup>3</sup><br>California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                                                                                                                                                                                                                                                                                                                    |
|  |      | see section 5202                                                                                                                                                                                                                                                                                                                                                                                                                                               |

#### Biological occupational exposure limits

| Component | CAS-No. | Parameters                                               | Value       | Biological specimen | Basis                                     |
|-----------|---------|----------------------------------------------------------|-------------|---------------------|-------------------------------------------|
|           | -       | Dichloromethane                                          | 0.3000 mg/l | Urine               | ACGIH - Biological Exposure Indices (BEI) |
|           | Remarks | End of shift (As soon as possible after exposure ceases) |             |                     |                                           |

## 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

Safety glasses with side-shields conforming to EN166 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**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

- |                                                 |                          |
|-------------------------------------------------|--------------------------|
| a) Appearance                                   | Form: liquid             |
| b) Odour                                        | No data available        |
| c) Odour Threshold                              | No data available        |
| d) pH                                           | No data available        |
| e) Melting point/freezing point                 | No data available        |
| f) Initial boiling point and boiling range      | No data available        |
| g) Flash point                                  | No data available        |
| h) Evaporation rate                             | No data available        |
| i) Flammability (solid, gas)                    | No data available        |
| j) Upper/lower flammability or explosive limits | No data available        |
| k) Vapour pressure                              | No data available        |
| l) Vapour density                               | No data available        |
| m) Relative density                             | 1.3266 g/cm <sup>3</sup> |
| n) Water solubility                             | No data available        |
| o) Partition coefficient: n-octanol/water       | No data available        |
| p) Auto-ignition temperature                    | No data available        |
| q) Decomposition temperature                    | No data available        |
| r) Viscosity                                    | 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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## 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**  
No data available
- 10.6 Hazardous decomposition products**  
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas  
In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

#### Skin corrosion/irritation

#### Serious eye damage/eye irritation

#### Respiratory or skin sensitisation

#### Germ cell mutagenicity

#### Carcinogenicity

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.

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.

OSHA: OSHA specifically regulated carcinogen (Methylene chloride)

#### Reproductive toxicity

#### Specific target organ toxicity - single exposure

#### Specific target organ toxicity - repeated exposure

#### Aspiration hazard

#### Additional Information

RTECS: Not available

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### 12.2 Persistence and degradability

### 12.3 Bioaccumulative potential

### 12.4 Mobility in soil

### 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.

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### DOT (US)

UN number: 1593      Class: 6.1      Packing group: III  
Proper shipping name: Dichloromethane, solution  
Reportable Quantity (RQ): 1001 lbs  
Poison Inhalation Hazard: No

### IMDG

UN number: 1593      Class: 6.1      Packing group: III      EMS-No: F-A, S-A  
Proper shipping name: DICHLOROMETHANE, SOLUTION

### IATA

UN number: 1593      Class: 6.1      Packing group: III  
Proper shipping name: Dichloromethane, solution

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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

The following components are subject to reporting levels established by SARA Title III, Section 313:

|                 | CAS-No. | Revision Date |
|-----------------|---------|---------------|
| Dichloromethane | 75-09-2 | 2007-07-01    |

### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

### Massachusetts Right To Know Components

|                 | CAS-No. | Revision Date |
|-----------------|---------|---------------|
| Dichloromethane | 75-09-2 | 2007-07-01    |

### Pennsylvania Right To Know Components

|                 | CAS-No. | Revision Date |
|-----------------|---------|---------------|
| Dichloromethane | 75-09-2 | 2007-07-01    |

|                 | CAS-No. | Revision Date |
|-----------------|---------|---------------|
| Dichloromethane | 75-09-2 | 2007-07-01    |

### New Jersey Right To Know Components

|                 | CAS-No. | Revision Date |
|-----------------|---------|---------------|
| Dichloromethane | 75-09-2 | 2007-07-01    |

### California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

|                 | CAS-No. | Revision Date |
|-----------------|---------|---------------|
| Dichloromethane | 75-09-2 | 2007-09-28    |

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## 16. OTHER INFORMATION

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

|               |                                    |
|---------------|------------------------------------|
| Aquatic Acute | Acute aquatic toxicity             |
| Carc.         | Carcinogenicity                    |
| Eye Irrit.    | Eye irritation                     |
| H315          | Causes skin irritation.            |
| H319          | Causes serious eye irritation.     |
| H336          | May cause drowsiness or dizziness. |
| H351          | Suspected of causing cancer.       |
| H402          | Harmful to aquatic life.           |
| Skin Irrit.   | Skin irritation                    |

### HMIS Rating

|                        |   |
|------------------------|---|
| Health hazard:         | 2 |
| Chronic Health Hazard: | * |
| Flammability:          | 0 |
| Physical Hazard        | 0 |

### NFPA Rating

|                    |   |
|--------------------|---|
| Health hazard:     | 2 |
| Fire Hazard:       | 0 |
| Reactivity Hazard: | 0 |

### Further information

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### Preparation Information

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1-800-521-8956

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