Section 1 - Product and Company Information

**Product Name:** Cholesterol, > 99%
**Product Number:** C3045
**Brand:** Sigma Chemical
**Company:** Sigma-Aldrich
**Street Address:** 3650 Spruce Street
**City, State, Zip, Country:** SAINT LOUIS, MO 63103 US
**Technical Phone:** 314 771 5765
**Fax:** 866 336 5012
**Emergency Phone:** 414 273 3800 Ext. 5906

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
<th>EC no</th>
<th>Annex I Index Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHOLESTEROL</td>
<td>77-86-5</td>
<td>No</td>
<td>200-353-2</td>
<td></td>
</tr>
</tbody>
</table>

**Formula:** C27H46O
**Synonyms:** Cholest-5-en-3-ol (3-beta)-(9CI), Cholest-5-en-3-beta-ol, delta(5)-cholest-5-en-3-beta-ol, 5-cholest-5-en-3-beta-d, 5,6-cholest-5-en-3-beta-d, cholest-5-en-3-beta-ol, cholesterol, cholesterine, cholesterole, cholesteryl alcohol, cholesteryl, cholesterol, cholesteryl alcohol, cholesterine, cholesterole.

Section 3 - Hazards Identification

<table>
<thead>
<tr>
<th>HMIS Rating</th>
<th>Flammability: 0</th>
<th>Reactivity: 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA Rating</td>
<td>Flammability: 0</td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

**Oral Exposure:** If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

**Dermal Exposure:** In case of contact, immediately wash skin with soap and copious amounts of water.

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

**Autoignition Temp:** N/A

**Extinguishing Media:** Suitable Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

**Firefighting Equipment:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s) Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

**Methods for Cleaning Up:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

**Methods for Cleaning Up:** Absorb on sand or vermiculite and place in closed containers for disposal. Wash spill site with soap solution.

Section 7 - Handling and Storage

**Handling:** Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage:** Suitable Keep tightly closed. Store at -20°C

Section 8 - Exposure Controls / PPE

**Engineering Controls:** Safety shower and eye bath. Mechanical exhaust required.

**Personal Protective Equipment:**
- Respiratory: Wear dust mask.
- Hand: Protective gloves.
- Eye: Chemical safety goggles.

**General Hygiene Measures:** Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

**Appearance:** Physical State: Solid
**Color:** Very faintly beige
Molecular Weight: 386.66 AMU

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>BP/VP Range</td>
<td>360 °C</td>
<td>760 mmHg</td>
</tr>
<tr>
<td>MP/VP Range</td>
<td>148 °C</td>
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</tr>
<tr>
<td>Freezing Point</td>
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</tr>
<tr>
<td>Vapor Pressure</td>
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<tr>
<td>Vapor Density</td>
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<tr>
<td>Saturated Vapor Conc.</td>
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<tr>
<td>SG/Density</td>
<td>1.067 g/cm³</td>
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<tr>
<td>Bulk Density</td>
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</tr>
<tr>
<td>Odor Threshold</td>
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</tr>
<tr>
<td>Viscosity</td>
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<td></td>
</tr>
<tr>
<td>Water Content</td>
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<td></td>
</tr>
<tr>
<td>Solvent Content</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
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<td></td>
</tr>
<tr>
<td>Decomposition Temp.</td>
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<td></td>
</tr>
<tr>
<td>Flash Point °F</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Flash Point °C</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Flammability N/A
Autoignition Temp N/A
Solubility N/A
Solv: 0.1 g/ml CHCl₃, clear, colorless
N/A = not available

Section 10 - Stability and Reactivity

Stability
- Stable
- Materials to Avoid
  Strong oxidizing agents.

Hazardous Decomposition Products
- Carbon monoxide
- Carbon dioxide

Section 11 - Toxicological Information

Route of Exposure
- Skin Contact
  May cause skin irritation.
- Skin Absorption
  May be harmful if absorbed through the skin.
- Eye Contact
  May cause eye irritation.
- Inhalation
  May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion
- May be harmful if swallowed.

Signs and Symptoms of Exposure
- To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: F28400000

Chronic Exposure - Carcinogen
- Rat: Intraperitoneal: 800 MG/KG 3W 1 Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.
- Mouse - Subcutaneous: 15 GM/KG 47W 1 Result: Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic: Tumors at site or application.
- Mouse - Subcutaneous: 60 GM/KG 2W 1 Result: Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic: Tumors at site or application.

IARC Carcinogen List
- Rating Group 3

Chronic Exposure - Teratogen
Species    | Route of Application | Exposure Time | Dose (8-14D PREG) | Results Specific Development Abnormalities: Craniofacial (including nose and tongue).
---        | ---                 | ---           | ---               | ---
Rat        | Subcutaneous        | (1-31D PREG)  | 6 GM/KG Oral      | Effects on Embryo or Fetus: Extra embryonic structure (e.g., placenta, umbilical cord). Effects on Newborn: Stillbirth.

Chronic Exposure - Mutagen
Species    | Cell Type | Mutation test | Dose (1 UML/L) | Other cell types DNA
---        | ---       | ---           | ---             | ---
Mouse      | ---       | ---           | ---             | ---

Chronic Exposure - Reproductive Hazard
Species    | Route of Application | Exposure Time | Dose (1-31D PREG) | Results Specific Development Abnormalities: Craniofacial (including nose and tongue).
---        | ---                 | ---           | ---               | ---
Rat        | Subcutaneous        | (1-31D PREG)  | 1000 MG/KG        | Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Fertility: Litter size (e.g., if fetuses per litter; measured before birth).

Section 12 - Ecological Information
No data available.

Section 13 - Disposal Considerations
- Appropriate Method of Disposal of Substance or Preparation
  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. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information
- DOT Proper Shipping Name: None
- Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

Sigma Chemical - C3045 Sigma-Aldrich Corporation
Page 3 Sigma-Aldrich Corporation Page 4
Section 15 - Regulatory Information

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

EU Additional Classification
Safety Statements S: 22 24/25
Do not breathe dust. Avoid contact with skin and eyes.

United States Regulatory Information
SARA Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information
WHMIS Classification
This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSYL: Yes
DNSL: No

Section 16 - Other Information

Disclaimer
For R&D use only. Not for drug, household or other uses.

Warranty
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 Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.