



## SAFETY DATA SHEET

according to Regulation (EC) No.-

Version 1.0  
Revision Date 29.11.2021  
Print Date 29.11.2021  
[www.markherb.com](http://www.markherb.com)

### Section 1. Product and Company Information

**GHS Product Name:**  $\beta$ -sitosterol  
**Product Code:** TER-3-10 | TER-3-20 | TER-3-50  
**CAS:** [83-46-5]  
**Molecular Formula:** C<sub>29</sub>H<sub>50</sub>O  
(3S,8S,9S,10R,13R,14S,17R)-17-[(2R,5R)-5-ethyl-6-methylheptan-2-yl]-10,13-dimethyl-2,3,4,7,8,9,11,12,14,15,16,17-dodecahydro-1H-cyclopenta[a]phenanthren-3-ol; Cupreol; Azuprostat; Prostatasal  
**Company:** MarkHerb  
**Address:** Gedung Riset dan Inovasi (ex. PAU Lt. 8), Institut Teknologi Bandung, Jl Ganesha 10, Bandung 40132  
**Tel.:** +62 877-4556-0063  
**Fax:** -  
**Website:** [www.markherb.com](http://www.markherb.com)  
**E-mail:** [info@markherb.com](mailto:info@markherb.com)

### Section 2. Hazards Identification

#### 2.1 GHS classification

**PHYSICAL HAZARDS** skin irritation category 2

**HEALTH HAZARDS** Not classified

**ENVIRONMENTAL HAZARDS** Not classified

#### 2.2 GHS label elements, including precautionary statements

**Pictograms or hazard symbols** None

**Signal word** danger

**Hazard statements** May cause an allergic skin reaction

##### Precautionary statements

Obtain special instructions before use

Avoid breathing dust/fume/gas/mist/vapors/spray.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

##### Hazards not otherwise classified (HNOC)

None identified

### Section 3. Information on Basic Physical and Chemical Properties

**Physical States:** [ ] Gas [ ] Liquid [ X ] Solid

---

<b>Melting Point:</b>	139-141 °C	
<b>Boiling Point:</b>	501 °C at 760 mmHg	
<b>Flash Pt:</b>	220 °C	
<b>Evaporation Rate:</b>	No data	
<b>Flammability (solid, gas):</b>	No data available.	
<b>Explosive Limits:</b>	<b>LEL:</b> No data.	<b>UEL:</b> No data
<b>Vapor Pressure (vs. Air or mm Hg):</b>	2.9 mmHg at 25 °C	
<b>Vapor Density (vs. Air = 1):</b>	1.1 g/cm <sup>3</sup>	
<b>Specific Gravity (Water = 1):</b>	No data	
<b>Solubility in Water:</b>	insoluble	
<b>Solubility Notes:</b>	EtOH, chloroform	
<b>Autoignition Pt:</b>	No data	
<b>Percent Volatile:</b>	No data	
<b>Partition coefficient:</b>	No data	
<b>pH:</b>	No data	

---

## Section 4. First aid measures

### Description of first aid measures

#### If inhaled

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

#### In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

#### In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

#### 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**).

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

No data available

---

## Section 5. Fire Fighting Measures

### Suitable extinguishing

**Media:** Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

**Precautions for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### Special protective:

**equipment for firefighters:** When extinguishing fire, be sure to wear personal protective equipment.

---

## Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Remove all sources of ignition. Take precautionary measures against static discharges.

---

---

**Environmental precautions**

Should not be released into the environment.

**General Information:**

Use proper personal protective equipment as indicated in **Section 8**.

**Spills/Leaks:**

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete.

---

## Section 7. Handling and Storage

**Precautions for safe handling:**

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

**Storage:**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Protect from direct sunlight

**Specific end uses**

Use in a laboratory fume hood where possible. Refer to employer is COSHH risk assessment.

---

## Section 8. Exposure Controls / Personal Protection

**Engineering controls:**

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

**Control parameters:** Not set up

**Personal protective equipment:**

**Respiratory protection:** Dust respirator. Follow local and national regulations.

**Hand protection:** Protective gloves.

**Eye protection:** Wear safety glasses and chemical goggles if splashing is possible.

**Skin and body protection:** Wear appropriate protective gloves and clothing to prevent skin exposure.

---

## Section 9. Stability and Reactivity

**Reactivity**

Stable under recommended transport or storage conditions.

**Chemical Stability**

Stable under normal temperatures and pressures. Light sensitive

**Conditions to Avoid**

Incompatible products. Excess heat. Exposure to light. Keep away from open flames, hot surfaces and sources of ignition.

**Incompatibilities with Other Materials**

Strong oxidising/reducing agents

**Hazardous Decomposition Products**

---

---

Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>) Nitrogen oxides, nitrogen.

**Hazardous Polymerization**

Has not been reported.

---

## Section 10. Toxicological Information

<b>Acute Toxicity:</b>	No data
<b>Skin corrosion/irritation:</b>	May cause sensitization by skin contact
<b>Serious eye damage/irritation:</b>	No data
<b>Germ cell mutagenicity:</b>	No data
<b>Carcinogenicity:</b>	IARC = No data NTP = No data
<b>Reproductive toxicity:</b>	No data

---

## Section 11. Ecological Information

<b>Toxicity:</b>	No data
<b>Persistence and degradability:</b>	Persistence is unlikely
<b>Bioaccumulative potential:</b>	No data
<b>Mobility in soil:</b>	No data
<b>Results of PBT &amp; vPvB assessment:</b>	No data
<b>Other adverse effects:</b>	May be harmful to the aquatic environment.

---

## Section 12. Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

---

## Section 13. Transport Information

**Hazards Class**

Does not meet the criteria for classification as hazardous for transport.

**UN proper shipping name ADR/RID**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**Transport hazard class(es)**

Does not meet the criteria for classification as hazardous for transport.

---

---

---

## **Section 14. Regulatory Information**

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

no data

### **Chemical Safety Assessment**

no data

---

## **Section 15. Additional Information**

This MSDS above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

---

**-----End of safety data sheet-----**