

## Section 1. Product and Company Information

**GHS Product Name:** Eugenol  
**Product Code:** PHE-5-1000  
**CAS:** [97-53-0]  
**Molecular Formula:** C<sub>10</sub>H<sub>12</sub>O<sub>2</sub>  
2-Methoxy-4-(2-propenyl)phenol; 4-Allyl-2-methoxyphenol; 4-Allylguaiacol  
**Company:** MarkHerb  
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**Tel.:** +62 877-4556-0063  
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## Section 2. Hazards Identification

### 2.1 GHS classification

**PHYSICAL HAZARDS** Not classified

#### HEALTH HAZARDS

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Skin sensitisation (Category 1), H317

Aspiration hazard (Category 1), H304

**ENVIRONMENTAL HAZARDS** Not classified

### 2.2 GHS label elements, including precautionary statements

#### Pictograms or hazard symbols



**Signal word** Danger

#### Hazard statements

H302 Harmful if swallowed

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

#### Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 + P331	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P303	Rinse mouth.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P501	Dispose of content/container in accordance with local and national regulations.

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

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid	
<b>Melting Point:</b>	-12 – -10°C	
<b>Boiling Point:</b>	254°C at 760 mmHg	
<b>Flash Pt:</b>	112°C - closed cup	
<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>	0.01 mmHg at 25°C	
<b>Vapor Density (vs. Air = 1):</b>	5.7	
<b>Specific Gravity (Water = 1):</b>	1.066 at 20°C	
<b>Solubility in Water:</b>	1.154 g/l at 20°C	
<b>Solubility Notes:</b>	Chloroform (Slightly); Ethyl Acetate (Slightly); DMSO (Soluble); Cold water (Partially soluble); hot water (Partially soluble);	
<b>Autoignition Pt:</b>	No data	
<b>Percent Volatile:</b>	No data	
<b>Partition coefficient:</b>	log Pow: 2.7 (n-Octanol/Water)	
<b>pH:</b>	No data	

### Section 4. First aid measures

#### Description of first aid measures

##### If inhaled

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

##### In case of skin contact

Wash off with soap and plenty of water.

##### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes.

##### If swallowed

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

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

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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

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## Section 5. Fire Fighting Measures

### Suitable extinguishing

**Media:** Dry chemical, alcohol-resistant foam, water spray, carbon dioxide.

Do not use water jet.

**Precautions for firefighters:** Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.

### Special protective:

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

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## Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

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

### Environmental precautions

Do not let product enter drains.

### 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.

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## 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:

Store in a well closed container. Protected from air and light, refrigerate or freeze (2-8°C)

Air Sensitive. Recommended storage temperature: 4°C

### Specific end uses

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

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## Section 8. Exposure Controls / Personal Protection

### Engineering controls:

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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.

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## Section 9. Stability and Reactivity

### Reactivity

Stable under recommended transport or storage conditions.

### Chemical Stability

Stable under normal temperatures and pressures.

### Conditions to Avoid

Incompatible materials, strong oxidants, heat, air.

### Incompatibilities with Other Materials

Strong oxidising/reducing agents, strong acids/alkalis, iron, zinc.

### Hazardous Decomposition Products

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

### Hazardous Polymerization

Has not been reported.

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## Section 10. Toxicological Information

<b>Acute Toxicity:</b>	LD50 Oral - Rat - 1930 mg/kg LD 50 Inhalation - Rat - Male - 2.6 mg/l - 4 h LD50 Dermal - Rabbit - 2000 mg/kg
<b>Skin corrosion/irritation:</b>	Skin - Rabbit - 100 mg - 24 h Skin - Human - 40 mg - 48 h
<b>Serious eye damage/irritation:</b>	Eyes - Rabbit Result: Irritating to eyes
<b>Respiratory/Skin Sensitisation:</b>	Local Lymph Node Assay (LLNA) - Mouse Result: Positive
<b>Germ cell mutagenicity:</b>	Rat - Liver - DNA Damage Mouse - Lymphocyte - Mutation in mammalian somatic cells Hamster - Embryo - Sister Chromatid Exchange
<b>Carcinogenicity:</b>	IARC = No data NTP = No data
<b>Reproductive toxicity:</b>	No data

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## Section 11. Ecological Information

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**Toxicity:**

Toxicity to fish: LC50 - Danio rerio (zebra fish) - 13 mg/l - 96 h

Toxicity to Daphnia and other aquatic invertebrates: Static Test EC50 - Daphnia (Water flea) - 1.13 mg/l - 48 h

Toxicity to algae: Static Test EC50 - Desmoddesmus subspicatus (Green algae) - 24 mg/l - 72 h

**Persistence and degradability:** 82% - Readily biodegradable

**Bioaccumulative potential:** No data

**Mobility in soil:** No data

**Results of PBT & vPvB assessment:** No data

**Other adverse effects:** Toxic to aquatic life.

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## Section 12. Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

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## 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.

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## Section 14. Regulatory Information

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

no data

### Chemical Safety Assessment

no data

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## 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.

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