

## Section 1. Product and Company Information

**GHS Product Name:** Gallic Acid  
**Product Code:** PHE-1-1000  
**CAS:** [149-91-7]  
**Molecular Formula:** C<sub>7</sub>H<sub>6</sub>O<sub>5</sub>  
3,4,5-Trihydroxybenzoic acid; asam galat (INA);  
**Company:** MarkHerb  
**Address:** Gedung Riset dan Inovasi (ex. PAU Lt. 8), Institut Teknologi Bandung, Jl Ganesha 10,  
Bandung 40132  
**Tel.:** +62 877-4556-0063  
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**Website:** [www.markherb.com](http://www.markherb.com)  
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## Section 2. Hazards Identification

### 2.1 GHS classification

**PHYSICAL HAZARDS** Not classified

#### HEALTH HAZARDS

Skin Corrosion/Irritation (Category 2), H315

Serious Eye Damage/Eye Irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), H335

**ENVIRONMENTAL HAZARDS** Not classified

### 2.2 GHS label elements, including precautionary statements

#### Pictograms or hazard symbols



**Signal word** Warning

#### Hazard statements

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

#### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

<b>Physical States:</b>	[ ] Gas [ ] Liquid [ X ] Solid
<b>Melting Point:</b>	252°C (dec.)(lit.)
<b>Boiling Point:</b>	501.1±50.0°C at 760 mmHg
<b>Flash Pt:</b>	271.0±26.6°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>	0.0±1.4 mmHg at 25°C
<b>Vapor Density (vs. Air = 1):</b>	No data
<b>Specific Gravity (Water = 1):</b>	1.694
<b>Solubility in Water:</b>	15 g/l (20°C)
<b>Solubility Notes:</b>	~2 mg/ml in PBS (pH 7.2); ~16 mg/ml in EtOH & DMSO; ~25 mg/ml in DMF;
<b>Autoignition Pt:</b>	No data
<b>Percent Volatile:</b>	No data
<b>Partition coefficient:</b>	No data
<b>pH:</b>	No data

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### Section 4. First aid measures

#### Description of first aid measures

##### If inhaled

Remove from exposure. 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, while removing all contaminated clothes and shoes.

##### In case of eye contact

Rinse thoroughly with plenty of water, also under the eyelids, 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

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.

**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:

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**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. Avoid breathing dust.

### **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 cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2-8°C.

Hygroscopic. Light sensitive. Moisture sensitive. Store under inert gas. Air sensitive.

### **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:**

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.

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**Chemical Stability**

Stable under normal temperatures and pressures.

**Conditions to Avoid**

Incompatible materials, strong oxidants, heat.

**Incompatibilities with Other Materials**

Strong oxidising/reducing agents, strong acids/alkalis,

**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-Rabbit-5000 mg/kg
<b>Skin corrosion/irritation:</b>	Causes skin irritation
<b>Serious eye damage/irritation:</b>	Causes serious eye irritation
<b>Germ cell mutagenicity:</b>	Hamster - Ovary - Cytogenetic Analysis Mouse - Cytogenetic analysis
<b>Carcinogenicity:</b>	IARC = No data NTP = No data
<b>Reproductive toxicity:</b>	Reproductive toxicity - Rat - Subcutaneous Maternal effects: Ovaries, fallopian tubes.

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**Section 11. Ecological Information**

<b>Toxicity:</b>	No data
<b>Persistence and degradability:</b>	No data
<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.

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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**

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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-----**