

**SAFETY DATA SHEET**

according to Regulation (EC) No.1907/2006

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**Material Safety Data Sheet  
Ferulic Acid msds****Section 1: Identification of the Substance/Preparation and of the Company/Undertaking****Identification of the substance or preparation**

**Product Name** : 4-hydroxy-3-methoxycinnamic acid  
**INCI Name** : Ferulic Acid  
**Synonym** : 3-Methoxy-4-hydroxy-cinnamic acid; 3-(4-Hydroxy-3-methoxyphenyl)acrylic acid  
**CAS#** : 1135-24-6  
**EINECS** : 214-490-0

**Company/undertaking identification****M.C.Biotec Inc.**

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Email: [mc@mcbiotec.com](mailto:mc@mcbiotec.com) Website: [www.mcbiotec.com](http://www.mcbiotec.com)**Section 2: Hazards Identification****Emergency Overview****OSHA Hazards**

Irritant

**HMIS Classification****Health hazard:** 2**Fire Hazard:** 1**Reactivity:** 0**Personal Protection:** E**NFPA Rating****Health hazard:** 2**Flammability:** 1**Reactivity:** 0**Potential Health Effects****Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.**Skin** May be harmful if absorbed through skin. May cause skin irritation.

<b>Eyes</b>	May cause eye irritation.	
<b>Ingestion</b>	May be harmful if swallowed.	
<b>Section 3: Composition and Information on Ingredients</b>		
Synonyms	: 3-Methoxy-4-hydroxy-cinnamic acid	
Formula	: C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	
Molecular Weight	: 194.19 g/mol	
CAS-No.	EC-No.	Concentration (%)
4-hydroxy-3-methoxycinnamic acid		
1135-24-6	214-490-0	100
<b>Section 4: First Aid Measures</b>		
<b>Eyes Contact</b>	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.	
<b>Skin Contact</b>	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.	
<b>Ingestion</b>	Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.	
<b>Additional Information</b>	Note to physician: Treat symptomatically.	
<b>Section 5: Fire Fighting Measures</b>		
<b>Flammability of the Product:</b> May be combustible at high temperature.		
<b>Auto-Ignition Temperature:</b> Not available.		
<b>Flash Points:</b> Not available.		
<b>Flammable Limits:</b> Not available.		
<b>Products of Combustion:</b> These products are carbon oxides (CO, CO <sub>2</sub> ).		
<b>Fire Hazards in Presence of Various Substances:</b> Not available.		
<b>Explosion Hazards in Presence of Various Substances:</b>		
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
<b>Fire Fighting Media and Instructions:</b>		

**SMALL FIRE:** Use DRY chemical powder. **LARGE FIRE:** Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

### Section 6: Accidental Release Measures

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Use a shovel to put the material into a convenient waste disposal container. Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

### Section 7: Handling and Storage

**Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Conditions for safe storage**

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

Keep in a dry place.

### Section 8: Exposure Controls/Personal Protection

**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:**

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

### Section 9: Physical and Chemical Properties

**Appearance**

**Form** : Crystalline Powder

**Color** : Off white to yellow

**Odor** : Characteristic

**pH** : no data available

**Boiling Point:** no data available

**Melting Point:** 170-175°C

**Critical Temperature:** Not available.

**Specific Gravity:** Not available.

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Solubility in water:** Soluble in cold water

#### Section 10: Stability and Reactivity

**Stability:** Stable under recommended storage conditions.

**Instability Temperature:** Not available.

**Materials to avoid:** Strong oxidizing agents, strong reducing agents, strong bases.

#### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.- Carbon oxides.

**Incompatibility with various substances:** Not available.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** No.

#### Section 11: Toxicological Information

##### Acute toxicity

LD50 Intraperitoneal - mouse - > 194 mg/kg

##### Irritation and corrosion

no data available

##### Sensitisation

no data available

##### Chronic exposure

**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.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**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:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Genotoxicity in vitro - Hamster - ovary

Cytogenetic analysis

Reproductive toxicity - Mammal - Oral

Maternal Effects: Uterus, cervix, vagina.

**Potential health effects**

- Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.
- Ingestion** May be harmful if swallowed.
- Skin** May be harmful if absorbed through skin. May cause skin irritation.
- Eyes** May cause eye irritation.

**Additional Information**

RTECS: GD9275000

**Section 12: Ecological Information**

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

**Section 13: Disposal Considerations**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**Section 14: Transport Information**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**Section 15: Regulatory Information**

**Federal and State Regulations:** TSCA 8(b) inventory: trans-Ferulic Acid

**Other Regulations:** EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**DSCL (EEC):**

R36/38- Irritating to eyes and skin. S24/25- Avoid contact with skin and eyes. S28- After contact with skin, wash immediately with plenty of [\*\*\*] S37- Wear suitable gloves. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

**Section 16: Other Information**

**Other Special Considerations:** Not available.

**Disclaimer**

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