

Safety Data Sheet

#34070271 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
4-Hydroxy-3-methoxycinnamic acid (Ferulic acid)	1135-24-6	C10H10O4	10	23 Oct 2026

SECTION 1

Identification

1.1 Product identifier

Product name	4-Hydroxy-3-methoxycinnamic acid (Ferulic acid)
CAS number	1135-24-6
EC / EINECS number	214-490-0
Chemical formula	C10H10O4
Molecular weight	194.184
SMILES	<chem>COC1=C(C=CC(=C1)C=CC(=O)O)O</chem>

1.2 Relevant identified uses of the substance or mixture and uses advised against

Research and development, laboratory chemicals, manufacture of substances; not suitable for human consumption or veterinary purposes.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Skin Irrit. 2, H315
Eye Irrit. 2, H319
STOT SE 3, H335 (respiratory tract irritation)

2.2 Label elements



WARNING

CODE	HAZARD STATEMENT
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H315	Causes skin irritation
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H319	Causes serious eye irritation
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H335	May cause respiratory irritation
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CODE	PRECAUTIONARY STATEMENT
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P261	Avoid breathing dust/fume/gas/mist/vapours/spray
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P264	Wash thoroughly after handling
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P271	Use only outdoors or in a well-ventilated area
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P280	Wear protective gloves/protective clothing/eye protection/face protection
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P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
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P302+P352	IF ON SKIN: Wash with soap and water
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P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
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P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing
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P403+P233	Store in a well-ventilated place. Keep container tightly closed
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P405	Store locked up
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P501	Dispose of contents/container to an approved waste disposal plant
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2.3 Other hazards

This product does not contain any known or suspected Endocrine disruptors. Does not meet PBT or vPvB criteria under REACH Annex XIII.

SECTION 3

Composition / information on ingredients**3.1 Substances**

Name	4-Hydroxy-3-methoxycinnamic acid (Ferulic acid)
CAS number	1135-24-6
EC number	214-490-0
Concentration / purity	~100.0%
Classification according to Regulation (EC) No 1272/2008	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 (respiratory tract irritation)
Hazard statements	H315, H319, H335
Acute toxicity estimate (ATE)	Not reported
Impurities / stabilising additives	<i>Not applicable</i>

SECTION 4

First-aid measures**4.1 Description of first aid measures**

Inhalation	Remove person to fresh air and keep comfortable for breathing; if not breathing, give artificial respiration.
Skin contact	Take off immediately all contaminated clothing and rinse skin with water; contact physician if discomfort continues.
Eye contact	Remove contact lenses if present and rinse eyes with water for at least 15 minutes; seek medical attention.
Ingestion	Drink plenty of water; get medical attention if any discomfort continues.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: difficulty in breathing; skin: irritation; eyes: severe irritation; ingestion: severe abdominal pain, may cause severe internal injury.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically; no special treatment required.

SECTION 5

Fire-fighting measures**5.1 Extinguishing media**

Suitable extinguishing media	Foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	No limitation of extinguishing media given.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition or combustion may liberate carbon monoxide, carbon dioxide, nitrous gases (NO_x) and other toxic gases or vapours.

5.3 Advice for firefighters

Evacuate area, avoid breathing gas/fume/vapours/spray, cool containers exposed to heat with water spray and remove them if no risk is involved.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/gas/mist/vapours/spray, provide adequate ventilation, avoid contact with skin and eyes and avoid dust formation; see section 8 for PPE.

6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

Collect spillage with shovel, broom or the like and reuse if possible; dispose of large amounts according to local authorities.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Wear protective clothing, gloves, eye and face protection; avoid contact with skin and eyes, avoid breathing dust, keep away from food and drink, and do not eat, drink or smoke when using.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature	Ambient temperature
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Conditions for safe storage (incompatibilities)	Store at ambient temperature in a dry place in a closed container.
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7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection**8.1 Control parameters**

Occupational exposure limits (OEL / WEL) No occupational exposure limit assigned.

DNEC/PNEC data DNEL/DMEL: Not reported
PNEC: Not reported

8.2 Exposure controls

Eye / face protection Safety glasses
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Nitrile protective gloves (thickness 0.11 mm, breakthrough time 8 hours); inspect gloves before use.

Respiratory protection Not required
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection Wash skin thoroughly after handling.

Environmental exposure controls Avoid discharge into drains.

SECTION 9

Physical & chemical properties**9.1 Information on basic physical and chemical properties**

Appearance / physical state Solid
DERIVED FROM: LITERATURE

Colour Beige
DERIVED FROM: LITERATURE

Odour Not known
DERIVED FROM: LITERATURE

Melting / freezing point 180 - 190 °C
DERIVED FROM: LITERATURE

Boiling point No data available

Flammability No data available

Lower and upper explosion limit No data available

Flash point Not applicable

Auto-ignition temperature No data available

Decomposition temperature No data available

pH No data available

Acidity	Acid DERIVED FROM: LITERATURE
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient n-octanol/water (log value)	1.51 DERIVED FROM: LITERATURE
Vapour pressure	No data available
Density (g/mL)	1.14 g/mL DERIVED FROM: LITERATURE
Relative vapour density	No data available
Particle characteristics	No data available

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

There are no known reactivity hazards associated with this product.

10.2 Chemical stability

Stable under the prescribed storage conditions

10.3 Possibility of hazardous reactions

There are no known conditions that are likely to result in a hazardous situation.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5 Incompatible materials

Strong oxidising substances, strong acids and strong bases.

10.6 Hazardous decomposition products

See section 5.

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50)	Classification criteria not met; LD50 intraperitoneal (mouse) > 194 mg/kg; LD50 intravenous (mouse) 857 mg/kg.
Skin corrosion / irritation	Based on available data, the classification criteria are not met.
Eye corrosion / irritation	Based on available data, the classification criteria are not met.

Respiratory / skin sensitisation	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT (single / repeated exposure)	STOT single and repeated exposure: based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

11.2 Information on other hazards

This product does not contain any known or suspected endocrine disruptors.

SECTION 12

Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14

Transport information

14.1 UN number or ID number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special precautions for user Not applicable

Transport category Not applicable

Tunnel code Not applicable

Packing instruction (ADR) Not applicable

Packing instruction (IMDG) Not applicable

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences) Seveso III: Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances; Directive 94/33/EC - The protection of young people at work.

REACH code Y113

ECHA notification Not applicable

15.2 Chemical safety assessment

No

SECTION 16

Other information

Revision notes / other information

This version (v10) was created on 23.10.2026 and replaces version 2 (11.11.2025) with no significant changes.

Version 2, issued 2025-11-11, replaces SDS 2022-08-22; phrases: Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 (respiratory tract irritation), H315, H319, H335.

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.