

ni. 01.2020 Rev. 0

Material safety data sheet According to EU Regulation 1907/2006 in the current version Ferulic Acid

1. Identification of the substance/mixture and company

Trade name: Ferulic Acid

Active ingredient, antioxidant, 98 % purity, abundant phenolic phytochemical

found in plant cell wall components

INCI Ferulic acid CAS No.: 1135-24-6

EINESCS No. : - REACH registration No. : -

Supplier company identification: Elemental SRL, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania

Tel/Fax: +40259-436.755, www.elemental.eu

Emergency: RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate

Publică București.

International emergency number: +49 180 2273-112

2. Hazards Identification

Emergency Overview: No data available.

Potential Health Effects (Acute and Chronic): Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption.

May cause eye, skin, or respiratory system irritation.

The toxicological properties of this compound have not been fully evaluated.

Signs and Symptoms Of Exposure: No data available.

3. Declaration of ingredients

3.1 Substances

| Material | C.A.S | EINECS | Risk Symbol | % |
|----------------------------------|-----------|--------|-------------|----|
| 4-Hydroxy-3-methoxycinnamic acid | 1135-24-6 | - | - | 98 |

4. First aid measures

4.1 Description of first aid measures

If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.



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In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.

In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

5. Fire fighting measures

5.1 Fire Fighting Instructions

As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

5.2 Flammable Properties and Hazards

Emits toxic fumes under fire conditions.

5.3 Extinguishing Media

Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Unsuitable Extinguishing Media: No data available.

6. Accidental release measures

Steps To Be Taken In Case Material Is Released Or Spilled:

Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

Vacuum or sweep up material and place in disposal container.

Avoid raising dust.

After removal, ventilate contaminated area and flush thoroughly with water.

7. Handling and storage

7.1 Hazard Label Information

Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

7.2 Precautions To Be Taken in Handling Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

7.3 Precautions To Be Taken in Storing Keep tightly closed.



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Store at correct temperature.

8. Exposure controls / personal protection

8.1 Protective Equipment Summary – Hazard Label Information

Eye wash station in work area. Lab coat. Latex disposable gloves. Safety glasses

Safety shower in work area. Vent Hood.

Eve Protection: Safety glasses

Protective Gloves: Latex disposable gloves Other Protective Clothing: Lab coat

8.2 Respiratory Equipment (Specify Type)

No data available.

8.3 Engineering Controls (Ventilation etc.)

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.4 Work/Hygienic/Maintenance Practices

Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical States: Liquid Melting Point: No data. Boiling Point: No data. Autoignition Pt: No data. Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data. Specific Gravity (Water = 1): No data.

Vapor Pressure (vs. Air or mm Hg): No data.

Vapor Density (vs. Air = 1): No data.

Evaporation Rate (vs Butyl Acetate=1): No data. Solubility in Water: > 100 ug/ml at 25.0°C Other Solubility Notes: EtOH, DMSO, MeOH

Percent Volatile: N.A. Corrosion Rate: No data. Formula: No data.

Molecular Weight: No data.

pH: No data.

Appearance and Odor: White Fine Powder Characteristic Odor



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10. Stability and reactivity

Stability: Stable

Conditions To Avoid - Instability: protect from moisture Incompatibility - Materials To Avoid: strong oxidizing agents

Hazardous Decomposition Or Byproducts: carbon dioxide carbon monoxide

Hazardous Polymerization: Will not occur

11. Toxicological information

Toxicological Information: The toxicological effects of this compound have not been thoroughly studied.

Carcinogenicity/Other Information: No data available.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological information

Ecological Information: Runoff from fire control or dilution water may cause pollution.

13. Disposal considerations

Waste Disposal Method: Dispose in accordance with local, state and federal regulations.

14. Transport information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name: No data available.

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

15. Regulatory information

| US EPA SARA Title III | | | | | |
|--------------------------------------|----------|---------------|---------------|---------------|------------|
| Hazardous Components (Chemical Name) | CAS# | Sec.302 (EHS) | Sec.304 RQ | Sec.313 (TRI) | Sec.110 |
| Ferulic acid | No data. | No | No | No | No |
| US EPA CAA, CWA, TSCA | | | | | |
| Hazardous Components (Chemical Name) | CAS# | EPA CAA | EPA CWA NPDES | EPA TSCA | CA PROP 65 |
| Ferulic acid | No data. | No | No | No | No |



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| Sec.302: | EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. * indicates 10000 LB TPQ if not volatile. | |
|-------------------------------------|--|--|
| Sec.304: | EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. ** indicates statutory RQ. | |
| Sec.313: | EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category. | |
| Sec.110: | EPA SARA 110 Superfund Site Priority Contaminant List | |
| TSCA (Toxic Substances Control Act) | Lists: | |
| 5A(2): | Chemical Subject to Significant New Rules (SNURS) | |
| 6A: | Commercial Chemical Control Rules | |
| 8A: | Toxic Substances Subject To Information Rules on Production | |
| 8A CAIR: | Comprehensive Assessment Information Rules - (CAIR) | |
| 8A PAIR: | Preliminary Assessment Information Rules - (PAIR) | |
| 8C: | Records of Allegations of Significant Adverse Reactions | |
| 8D: | Health and Safety Data Reporting Rules | |
| 8D TERM: | Health and Safety Data Reporting Rule Terminations | |
| Other Important Lists: | | |
| CWA NPDES: | EPA Clean Water Act NPDES Permit Chemical | |
| CAA HAP: | EPA Clean Air Act Hazardous Air Pollutant | |
| CAA ODC: | EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC) | |
| CA PROP 65: | California Proposition 65 | |
| | | |

16. Additional information

16.1 Abbreviations:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.



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INCI: International Nomenclature of Cosmetic Ingredients.

LTE: Long-term exposure.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STE: Short-term exposure.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.

Disclaimer:

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.