

Safety Data Sheet


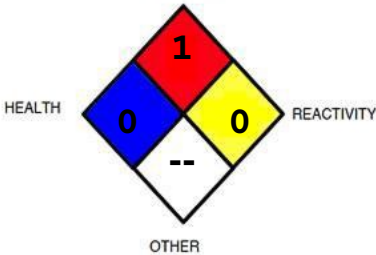
Section 1: Product & Company Identification

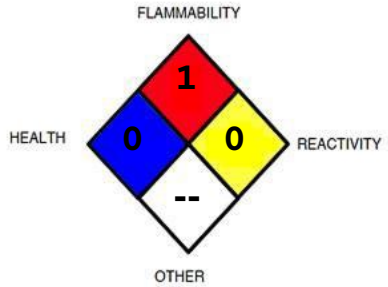
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| Product Name: | Rosmarinic Acid |
| Product #: | R-1122 |
| Synonyms: | Rosemary acid; Benzenepropanoic acid |
| Supplier: | AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego CA 92131 Tele# + 858-452-9925 |
| Emergency Tele#: | ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585 |

Section 2: Composition / Information on Ingredients

| Component | CAS# | EC # | % Composition |
|-----------------|------------|------|---------------|
| Rosmarinic Acid | 20283-92-5 | - | >98 |

Section 3: Hazards Identification

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| Symbols |  |
| HMIS Classification | <p style="text-align: center;">FLAMMABILITY</p>  <p style="text-align: center;">OTHER</p> |

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| NFPA Classification |  |
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Section 4: First Aid Measures

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| General Overview: | Immediate medical attention is required. If symptoms persist, call a physician. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. |
| Inhalation: | Immediate medical attention is required. Remove to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary. Call a physician. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician. |
| Skin: | Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. |
| Eyes: | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately. If symptoms persist, call a physician. |
| Ingestion: | Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician. |
| | See section 11 for more detailed information on health effects & symptoms. |

SECTION 5: Fire Fighting Measures

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| Flammability of the product: | No data available |
| Extinguishing Media: | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Hazardous thermal (de)composition products: | Carbon oxides |

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| Special Fire Fighting Procedures: | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |
| Flash Point: | No data available |

Section 6: Accidental Release Measures




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| Personal Precautions: | Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. |
| Environmental Precautions: | Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information. |
| Methods for Clean-up: | Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal. Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges. |

SECTION 7: Handling & Storage

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| Storage: | Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Store at -20°C. |
| Handling: | Avoid contact with skin, eyes, or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink, or smoke when using this product. Use with local exhaust ventilation. |

SECTION 8: Exposure controls / Personal Protection

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| Respiratory Protection: |  <p>If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high</p> |
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| | airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| Skin and Body: |   <p>Wear protective gloves and protective clothing.</p> |
| Eyes: |  <p>Tight sealing safety goggles. Face protection shield.</p> |
| Ventilation/Engineering Measures: | Showers, Eyewash stations, Ventilation systems |
| Hygiene: | Handle in accordance with good industrial hygiene and safety practice. |
| Other: | This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |

SECTION 9: Physical and Chemical Properties

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| Appearance & Odor: | Cream colored powder |
| Formula | $C_{18}H_{16}O_8$ |
| Molecular Wt. | 360.31 |
| Melting Pt. | 171°C |
| Boiling Pt. | No data available |
| Density: | No data available |
| Vapor Pressure: | 0 |
| Evaporation Rate: | No data available |
| Vapor Density: | No data available |
| Solubility: | DMSO (15 mg/mL warm) |
| Flash Point: | No data available |
| Autoignition Temp: | No data available |

SECTION 10: Stability and Reactivity

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| Stability: | Stable under recommended storage conditions. |
| Hazardous decomposition products: | Carbon oxides |
| Materials to Avoid: | Strong oxidizing agents |
| Conditions to avoid: | Extremes of temperature and direct sunlight |

SECTION 11: Toxicological Information

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| RTECS#: | N/A |
| ACUTE Toxicity: | N/A |
| CHRONIC Toxicity: | N/A |
| Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive: | <p>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.</p> <p>AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH.</p> <p>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP.</p> <p>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA.</p> <p>EPA: No classification on carcinogenic data is available from EPA</p> |

SECTION 12: Ecological Information

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| Ecotoxicity: | May cause long lasting harmful effects to aquatic life. |
| Mobility: | No data available |
| Persistence and degradability: | No data available |
| Bioaccumulative potential: | No data available |
| Other adverse effects: | No data available |
| Corrosivity Characteristic: | No data available |
| General Notes: | To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. |

SECTION 13: Disposal Considerations

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| Residue Waste or Unused product: | Disposal should be in accordance with applicable regional, national, and local laws and regulations. |
| Contaminated Packaging: | Do not reuse container. Waste codes should be assigned by the user based on the application for which the product was used. |

SECTION 14: Transportation Information

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| UN ID#: | N/A |
| ADR / RID (LAND): | Not regulated |
| DOT regulations: | Not regulated |
| IMDG/IMO (SEA): | Not regulated |
| IATA/DGR (AIR): | Not regulated |
| Special Provisions: | N/A |

SECTION 15: Regulatory Information

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| Health Phrases: | H301 Toxic if swallowed |
| Risk Phrases: | P264 Wash face, hands, and any exposed skin thoroughly after handling P270 Do not eat, drink, or smoke when using this product |
| Safety Phrases: | P+308+P313 IF exposed or concerned: Get medical advice/attention P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician P330 Rinse mouth P405 Store locked up P501 Dispose of contents/container to an approved waste disposal plant |
| EU Regulations: | N/A |
| US Regulations: | TSCA: No products were found California Proposition 65: No products were found |
| U.S. Federal Regulations: | SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: Acute Health Hazard SARA 313 toxic chemicals notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found. OSHA: Acute toxicity, oral (Cat. 3) |
| WHMIS (Canada): | N/A |



SECTION 16: Other Information

LIABILITY STATEMENT: *The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.*