



MATERIAL SAFETY DATA SHEET

This form complies with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

IDENTITY (As Used on Label and List): **Rosmarinic Acid**

SECTION I - Product Identification Rosmarinic Acid

Manufacturer Name and Address:	Telephone #s:	Dates:
Cayman Chemical Company	(800)364-9897	Date Entered: 08/10/1999
1180 E. Ellsworth Rd.		Last Revision: 08/10/1999
Ann Arbor, MI. 48108	(734)971-3335	MSDS Printed: 06/02/2000

Synonyms:
 (R)-.alpha.-[[3-(3,4-dihydroxyphenyl)-1-oxo-2E-propenyl]oxy]-3,4 -dihydroxy-benzenepropanoic acid
 Chemical Family: Antioxidant
 Hazard Label: Health: 2
 Molecular Formula: C₁₈H₁₆O₈ Flammability: 0 , Molecular Weight: 360.30 Reactivity: 0

SECTION II - Hazardous Ingredients/Identity Information Rosmarinic Acid

Hazardous Components (Specific Chemical Identity/Common Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits	Percentage
Rosmarinic Acid	20283-92-5				100.0

SECTION III - Physical/Chemical Characteristics Rosmarinic Acid

Boiling Point: NE or NA Specific Gravity (Water = 1): NE or NA Melting Point: 168.0 C Vapor Pressure (mm Hg): . . . NE or NA to: 170.0 C Vapor Density (Air=1):. . . NE or NA Evaporation Rate: NE or NA Physical States: [] Gas (Butyl Acetate=1) [] Liquid
 Solubility In Water:. >15 mg/ml* at 25.0 C [X] Solid *PBS pH 7.2, sol. in EtOH, DMSO, & DMF Percent Volatile: NE or NA
 Appearance and Odor:
 A crystalline solid.

SECTION IV - Fire and Explosion Hazard Data Rosmarinic Acid

Flash Pt: NE or NA Method Used:

Explosive Limits: LEL: UEL:

Autoignition Pt: NE or NA Extinguishing Media:

Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

Special Fire Fighting Procedures:

Unusual Fire and Explosion Hazards:

SECTION V - Reactivity Data Rosmarinic Acid

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability:

Incompatibility - Materials To Avoid:

Hazardous Decomposition Or Byproducts:

Hazardous Polymerization: May occur [] Will not occur [X]

Conditions To Avoid - Hazardous Polymerization:

SECTION VI - Health Hazard Data Rosmarinic Acid

Route(s) of Entry: Inhalation? Yes , Skin? Yes , Eyes? Yes , Ingestion? Yes , Other:

Health Hazards (Acute and Chronic):

Contact may cause skin or eye irritation. The toxicological properties of this compound have not been fully evaluated.

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

Carcinogenicity/Other Information:

Recommended Exposure Limits: LD 50/LC 50:

Signs and Symptoms Of Exposure:

Irritating to the skin, eyes, nose, throat, and respiratory tract.

Medical Conditions Generally Aggravated By Exposure:

Emergency and First Aid Procedures:

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. In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 15 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.

SECTION VII - Precautions for Safe Handling and Use Rosmarinic Acid

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

Vacuum or sweep up material and place in disposal container. After removal, flush the contaminated area thoroughly with

Waste Disposal Method:

