



ELRASA - MLA G1™ (D Malic Acid)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	White crystalline powder
Physical Form	White crystalline powder
Odor	Odorless.
Molecular Weight	134.09 g/mol.
Density / Specific Gravity	1.601 g/cm ³ at 20 °C.
Viscosity	6.5 mPa·s (for a 50% w/v aqueous solution at 25 °C).
pH (aqueous solution)	~2.3 (10 g/L solution at 20 °C).
Assay / Purity	99.0 - 100.5%.
Chemical Properties	
pKa	pKa1 = 3.40; pKa2 = 5.05 (at 25 °C).
Ionic Nature	Organic acid.
Incompatibilities	Incompatible with strong oxidizing agents, strong bases, amines, alkali metals, and carbonates. Aqueous solutions can be mildly corrosive to carbon steels.
Hazardous Reactions / Decomposition Products	Upon heating to decomposition, it emits carbon monoxide (CO) and carbon dioxide (CO ₂). Complete decomposition occurs at about 180 °C to yield fumaric acid and maleic anhydride.
Thermal Properties	
Melting Point	131-133 °C.
Boiling Point	Decomposes at 150 °C.
Flash Point	203 °C / 397.4 °F.
Autoignition Temperature	340 °C / 644 °F.
Decomposition Temperature	Begins to decompose at temperatures above 150 °C.
Thermal Stability	Stable at temperatures up to 150 °C.
Solubility	
Solubility in Water	55.8 g/100 g at 20 °C.
Solubility in Ethanol	45.53 g/100 g at 20 °C.



Property	Specification
Solubility in Methanol	82.7 g/100 g at 20 °C.
Solubility in Acetone	Soluble.
Solubility in Diethyl Ether	0.84 g/100 g at 20 °C.
Solubility in Glycerol	Soluble.
Solubility in Benzene	Practically insoluble / Insoluble.

2. Dosing by Application

Application	Recommended / Max Dosage
Beverages (Carbonated & Non-carbonated)	0.1% - 0.7%
Hard Candy	1.0% - 2.0%
Gummy Candies / Jellies	1.0% - 2.5%
Chewing Gum	0.5% - 2.0%
Fruit Preparations & Fillings	0.3% - 1.0%
Wine	Used according to good manufacturing practices for acidification.
Cosmetics / Skin Care	0.5% - 3.0% (for exfoliating properties)

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

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