



ELAROMA – SA™ (Sulphamic Acid)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	White crystalline powder; fine granules; flakes
Physical Form	Powder
Molecular Weight (g/mol)	97.09
Density or Specific Gravity	2.151 g/cm ³ at 25 °C
Refractive Index	1.553
pH (if aqueous solution)	1.2 (10g/l, H ₂ O)
pH	1.2 (10g/l, H ₂ O)
Chemical Properties	
Water Solubility	146.8 g/L (20 °C)
Incompatibilities	Strong bases, chlorine, nitric acid, strong oxidizers, metals (corrosive)
Hazardous Reactions	Reacts violently with bases, chlorine, nitric acid (fire/explosion hazard); emits toxic fumes when heated
Thermal Properties	
Melting Point	215-225 °C (dec.) (lit.)
Decomposition Temperature	Begins to decompose above 205°C, emitting SO ₂ , SO ₃ , and nitrogen gases
Thermal Stability	Stable when dry and at room temperature
Solvent	
Water	14.68 g/100 ml (0 °C)
Diethyl ether	0.009 g/100 g
Acetone	0.4 g/100 g
Formamide	20 g/100 g
Methanol	4.3 g/100 g
Sulfuric acid	2.38 g/100 g

2. Processing Methods



Cleaning tablets

When formulating cleaning tablets with Sulfamic Acid, ensure it's added in a dry, granulated form to prevent premature reaction with moisture. Use a binder compatible with acidic conditions to maintain tablet integrity during compression.

Key Ingredients	Indicative Dosage (% w/w)
Sulfamic acid	52.3-65.13%
Sodium carbonate	17.5-26.18%
Sorbitol	0-15%
Citric acid	5-10%
Surfactant	2-5%
Disintegrating agent	0.5-5%

Laundry Detergent

When incorporating Sulfamic Acid into laundry detergent, ensure it's well-dispersed in the dry blend to prevent localized acidity. Avoid reactive alkaline components during mixing to maintain product stability and efficacy.

Key Ingredients	Indicative Dosage (% w/w)
Sodium carbonate	16.44%
Sodium sulfate	8.52%
Sodium percarbonate	10-15%
Sulfamic acid	3.5%
Non-ionic surfactant	2%
Water	60-70%

Cleansers

Dissolve sulfamic acid completely in the water phase before adding to the cleanser formulation to ensure uniform acidity. Incorporate it during the cool-down phase to maintain stability and prevent premature reaction with other ingredients.

Key Ingredients	Indicative Dosage (% w/w)
Water (Aqua)	70%
Sodium Laureth Sulfate (SLES)	15%
Cocamidopropyl Betaine	5%
Glycerin	3%
Sulfamic Acid	0.5%
Preservative (Phenoxyethanol)	0.8%



Soap

Dissolve sulfamic acid in a small amount of water before adding to the soap base to ensure even distribution and controlled pH adjustment. Add it during the cool-down phase to prevent degradation and maintain product stability.

Key Ingredients	Indicative Dosage (% w/w)
Sodium Stearate	25%
Sodium Laureth Sulfate	30%
Sodium Chloride	10%
Sulfamic Acid	0.5-2%
Water	30-40%

3. Products

Products	Authorized dosage
Laundry Detergent	1-5%
Cleaners	0.5-10% (typical)

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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