



ELAROMA - NaCiAH™ (Sodium Citrate)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	White crystalline powder
Physical Form	White crystalline powder
Odor	Odorless
Molecular Weight	258.06 g/mol
Density / Specific Gravity	1.7 g/cm ³
Refractive Index	1.58
pH (aqueous solution)	7.5 - 9.0 (in a 5% aqueous solution)
Assay / Purity	≥99.0%
Chemical Properties	
pKa	3.13, 4.76, 6.40
Ionic Nature	Ionic salt
Incompatibilities	Strong oxidizing agents, strong acids, strong bases.
Hazardous Reactions / Decomposition Products	Thermal decomposition may produce carbon monoxide and carbon dioxide.
Thermal Properties	
Melting Point	300 °C (decomposes)
Boiling Point	Not applicable
Flash Point	155.2 °C
Decomposition Temperature	>300 °C
Thermal Stability	Stable under normal storage conditions.
Solubility	
Solubility in Water	Freely soluble; 57 g/100 mL at 25°C
Solubility in Ethanol	Practically insoluble

2. Processing Methods



Meltable Cheese Slices

A formulation for creating sliceable, meltable cheese from a high-quality cheese block.

Key Ingredients	Indicative Dosage (% w/w)
Cheese (e.g., Cheddar)	96.0%
Milk (or water)	1.0%
Sodium Citrate	3.0%

Creamy Macaroni and Cheese Sauce

A simple formulation for a smooth and creamy cheese sauce without the need for a traditional roux.

Key Ingredients	Indicative Dosage (% w/w)
Cheese (e.g., Gruyère, Cheddar blend)	97.0%
Liquid (e.g., milk, water, or beer)	2.5%
Sodium Citrate	0.5%

3. Dosing by Application

Application	Recommended / Max Dosage
Food and Beverages (as a buffering agent/flavoring)	Used in accordance with current Good Manufacturing Practice (cGMP).
Processed Cheese (as an emulsifying salt)	0.5% - 3.0%
Spherification (to adjust pH of acidic liquids)	0.01% - 0.3% to achieve a neutral pH of 5.
General Food and Drink Applications	0.5% - 5.0%
Neutralizing Buffer (pharmaceutical)	15 mL (3 teaspoonfuls) diluted with 15 mL of water.
Systemic Alkalizer (pharmaceutical)	10 to 30 mL, diluted in water, after meals and at bedtime.

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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