



Stevia

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	White to off-white powder
Physical Form	White to off-white powder
Odor	Some extracts may have undesirable licorice aromas.
Molecular Formula	C38H60O18
Density / Specific Gravity	1.0 g/cm ³
pH (aqueous solution)	Approximately 6.0 - 8.0
Assay / Purity	Food & Pharmaceutical Grade: ≥95% steviol glycosides
General	
CAS Number	91722-21-3
Grades	Food Grade, Pharmaceutical Grade
Chemical Properties	
Incompatibilities	Oxidizing agents, strong acids.
Hazardous Reactions / Decomposition Products	With heat, the product burns/oxidizes to form carbon, carbon monoxide, and/or carbon dioxide, and smoke.
Thermal Properties	
Melting Point	196-198°C
Boiling Point	Decomposes before boiling
Decomposition Temperature	Thermally stable up to 200°C.
Thermal Stability	Stevia is heat-stable, allowing it to retain sweetness during high-temperature processes like baking and pasteurization.
Solubility	
Solubility in Water	Soluble.
Solubility in Ethanol	Soluble.
Solubility in Methanol	Soluble.

2. Processing Methods



Low-Calorie Orange Nectar (50% Juice)

A sugar-free orange nectar formulation.

Key Ingredients	Indicative Dosage (% w/w)
Orange juice concentrate (60 Brix)	9.52%
Processed water	90.48%
Citric acid	0.58%
Stevia	0.05%

Sugar-Free Chewing Gum

A formulation for a sugar-free chewing gum.

Key Ingredients	Indicative Dosage (% w/w)
Gum base	
Sorbitol	
Maltitol	
Glycerin	
Natural flavors	
Stevia	0.7% - 5.5%
Lecithin	
Carnauba wax	

3. Dosing by Application

Application	Recommended / Max Dosage
Sugar-free water-based flavored drinks	160 - 700 mg/kg
Sugar-free dairy-based drinks	500 - 700 mg/kg
Sugar-free fruit juice-based drinks	300 - 700 mg/l
Sugar-free desserts (water, dairy, fruit, egg, cereal, or fat-based)	350 - 1000 mg/kg
Breakfast cereals	600 - 1000 mg/kg
Sugar-free edible ices	500 - 800 mg/kg
Sugar-free canned or bottled fruit	350 - 1000 mg/kg
Energy-reduced jams, jellies, marmalades	500 - 2000 mg/kg
Sugar-free confectionery	1000 - 3000 mg/kg



Application	Recommended / Max Dosage
Sugar-free chewing gum	700 - 5500 mg/kg
Fine bakery wares	500 - 2000 mg/kg
Sauces and mustards	300 - 500 mg/kg
Solid dietary supplements	300 - 2000 mg/kg
Liquid dietary supplements	300 - 600 mg/kg
Pharmaceutical preparations	1000 - 5000 mg/kg
Acceptable Daily Intake (ADI)	4 mg/kg of body weight (expressed as steviol equivalents)

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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