



ELVISC – CST G4™ (Corn Starch)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	A matt, white to slight yellowish, very fine powder, which creaks when pressed between the fingers.
Physical Form	Powder
Odor	Odorless
Molecular Weight	The molecular weight of the base unit is 162.14 g/mol.
Density / Specific Gravity	1.5 g/cm ³
Refractive Index	1.591
pH (aqueous solution)	4.00 – 7.00
Assay / Purity	The material is conformed as per the BP specification.
Authoritative Data (from COA)	
Chemical Name	Corn Starch
CAS Number	65996-63-6
Grade	BP Grade
Molecular formula	(C ₆ H ₁₀ O ₅) _n
Description	Used as a disintegrant and binder in tablet formulations and as a filler in various pharmaceutical applications.
Known applications	Thickener, Binder, Disintegrant, Moisture Absorbent, Paper Industry
Density	1.5 g/cm ³
Chemical Properties	
Ionic Nature	Covalent.
Incompatibilities	Strong oxidizing agents.
Hazardous Reactions / Decomposition Products	If the product is consumed by flame, thermal decomposition byproducts may include carbon monoxide, carbon dioxide, and smoke.
Thermal Properties	
Melting Point	Decomposes before melting.
Boiling Point	Decomposes.



Property	Specification
Autoignition Temperature	400 °C / 752 °F
Thermal Stability	Stable under normal operational conditions. Refrigeration treatment enhances the thermal stability of corn starch.
Solubility	
Solubility in Water	Practically insoluble in cold water.
Solubility in Ethanol	Practically insoluble in Alcohol.

2. Processing Methods

Metronidazole Sustained-Release Tablets

Granules were prepared by wet granulation method using acacia gum as the binder and acetylated corn starch as a disintegrant. Lactose was used as the diluent. The tablets produced met the standard requirements for friability, hardness, and content uniformity, and provided sustained release of metronidazole over several hours.

Key Ingredients	Indicative Dosage (% w/w)
Acetylated Corn Starch	5, 7.5, 10, 15, 20, and 25%

Low-Fat Whipped Cream

Micronized cornstarch was used to partially substitute the fat in whipped cream.

Key Ingredients	Indicative Dosage (% w/w)
Fat	85%
Micronized Cornstarch	15%

3. Dosing by Application

Application	Recommended / Max Dosage
Disintegrating agent for tablets	3-15%
Binder in wet granulation	2.5-7.5% (w/v)
Lotions (to reduce tack and oiliness)	0.5-3%
Cream to powder formulations	Up to 30%
Topical body powders	Up to 99%

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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