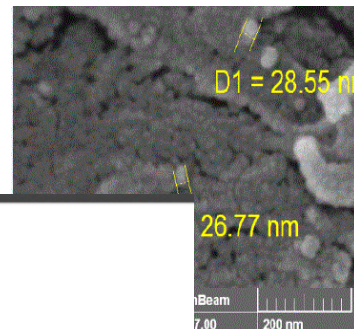


Nano Crystalline cellulose(CNC)



----- Material Safety Data Sheet -----

CELLULOSE NANOCRYSTALS (aqueous suspension)

Section 1. Product Identification

Name: Cellulose nanocrystals (CNC)

Synonyms: Nanocrystalline cellulose (NCC), cellulose crystallites, cellulose whiskers

Molecular Weight: Not applicable.

Chemical Formula: $[(C_6H_{10}O_5)_x(C_6H_9O_4SO_4Na)_y]$ such that weight sulfur is 0-2 percent

Section 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Cellulose Nanocrystals	N/A	1-15%
Water	7789-20-0	85-99%

Test	Specification
Appearance	yellow and white
Solids:	11.5 – 12.5 w% aqueous gel 98 w/% dry powder
Fiber dimensions:	5-20 nm wide 150-200 nm long
Surface property:	Hydrophilic
Density:	1.0 g/cm ³ aqueous gel 1.5 g/cm ³ dry powder
Required storage conditions:	For the gel products, store under refrigeration. Do not freeze. For dry products, store in dry locale.
Expiry date:	If properly stored, > 1 year
Available Packaging:	
Gel (slurry)	2-gallon pails that contain 1.0 pound of product.
Dry	Wide mouth plastic jars/ bags that contain 0.5 pounds of product