



## Cellubrite MCC

Micro Crystalline Cellulose

biopolymer

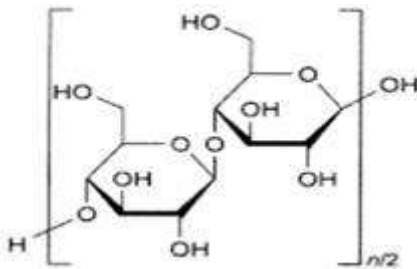
USP/NF, JP, Ph.Eur.,BP, E460

CAS nr: 9004-34-6

Einecs nr: 232-674-9

### Product information

Synonyms: 2-[4,5-dihydroxy-2-(hydroxymethyl)-6-methoxyoxan-3-yl]oxy-6-(hydroxymethyl)-5-methoxyoxane-3,4-diol, cellulose gel,  $(C_6H_{10}O_5)_n$



Cellubrite MCC is a polysaccharide consisting of  $\beta(1\rightarrow4)$  linked glucose units. MCC has no taste nor odour. It is non-toxic and contains almost exclusively dietary fibre. Cellubrite MCC is readily biodegradable. The crystalline powder is hygroscopic, but insoluble in water; with water it swells to form a gel.

General micro crystalline celluloses are available in the market, these are not optimum for use in tablets. Sirius and its co-producer succeeded to develop 2 types of Cellubrite MCC which take care of tablets dissolving in water within seconds.

Cellubrite MCC comes in various custom made sizes that have different properties. The main applications is as tablet disintegrating agent in pharmacy, food and detergents. In other markets it acts as emulsifier, dispersing agent stabilizer, anti-caking agent. Because of its properties, among which chemical purity and high crystallinity, many more applications start to develop like in sprays, oral suspensions and lotions. Here, it is an alternative to synthetic gels or degradable polymers.

### Product specifications

Test Item	Cellubrite MCC-fine	Cellubrite MCC-coarse
Appearance	White to creamy white free flowing microgranules	White to creamy white free flowing granulate
Loss on drying, %	max. 7.0	max. 7.0
Active matter on dry basis, %	97.0 - 102.0	min. 96.0

Residue on ignition / sulphated ash, %	max. 0.1	-
Conductivity, uS/cm	max. 75	-
Water soluble substance, %	max. 0.25	-
Ether soluble substance, %	max. 0.05	-
pH	5.0 - 7.5	5.0 - 8.0
	1% solution	10% suspension
Bulk density, g/l	310 - 390	400 - 500
Granulometry over 60mesh, % over 100mesh, %	min. 10.0 min. 50.0	-
Particle size distribution D10 D50 D90	max. 70 micron 150 - 200 micron min. 260 micron	0.3 -1.5 mm
Heavy metals, ppm	max. 10	max. 10
Brightness, %	-	min. 80
Total viable aerobic count, CFU/g	max. 1000	-
Total yeast and mold count, CFU/g	max. 1000	-
Staph. Aureus, Esch. Coli, Pseud.aerug, Salmonella species	absent	-

## Commercial

### Packaging:

20-25kg bags, 500, 600, 1000kg big bags, 24mt silo truck (bulk)

Lead time packed and bulk in case of contract:

1 week (directly from stock)

Lead time packed and bulk in case of spot order:

8 weeks

## Technical

Cellubrite MCC is made from fibrous plant and wood pulp. After treatment of alpha-cellulose with mineral acid and HCl, the amorphous cellulose parts are removed, leaving the crystalline cellulose parts for the purification step.

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