

BULLETIN VC-5720-1

natrathix™ bio cellulose

nature-derived, biodegradable thickener and emulsion stabilizer
formulator benefits

- nature-derived from non-GMO, sustainably sourced¹ cellulose
- natural origin content >84% according to ISO16128-2:2017
- inherently biodegradable
- COSMOS-validated, vegan suitable
- high electrolyte and mineral tolerance
- no neutralization required
- cold processible
- compatible with other nature-derived thickeners
- effective across a wide pH range (4-8)

formulation benefits

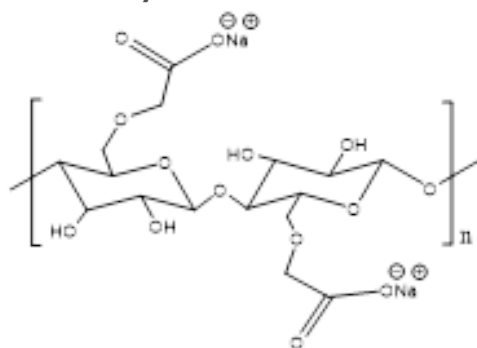
- delivers thickening and suspension benefits to a variety of formulation systems
- enables clear formulations
- improves emulsion stability
- demonstrates synergy when used with other common thickeners
- improved aesthetics over most common natural thickeners
- desirable skin after-feel

¹suppliers have made commitments to utilize standards set by the Forest Stewardship Council (FSC) and/or Program for the Endorsement of Forest Certification (PEFC).

applications

leave-on skin care

product forms skin creams, lotions, gels, face masks, sun care, foundations, BB creams

available formulations from Ashland creams, lotions, gel serum, sunscreen cream and lotions
chemistry

INCI name: Cellulose Gum



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typical properties

appearance.....beige granulated powder
 moisture content.....8% (max)
 pH (1% aqueous solution) ~7
 viscosity, mPa.s (1% aq, Brookfield LV, spindle#4, 30rpm, 3mn, 25°C) :~5000
 viscosity, mPa.s (1% aq, Brookfield RVT, helipath T-bar spindle#A, 5rpm, 1mn, 25°C) :..... 7000-10000

formulation guidelines

| | |
|--------------------------------------|--|
| recommended use levels | for suspension: 1.2-1.5% for emulsions: 0.4- 1.3% |
| temperature/mixing conditions | cold processible disperse in water and mix for at least 30 minutes, faster mixing speed will speed incorporation |
| when to add | polymer is ideally added at the beginning of the formulation to ensure that the polymer is completely hydrated before adding additional ingredients. |
| tips from Ashland's solvers | for accelerated incorporation you can pre-wet in glycol and/or heat during mixing no neutralization needed add electrolytes and/or minerals after gel has formed |

safety, handling, and storage

It is recommended to use the product in rotation on a first-in first-out basis. The product should be stored under dry and clean conditions in its original packing and away from heat. The product is hygroscopic. The packaging is selected in a way to avoid ingress of moisture, but the water content of the packed product will/may increase if not stored properly.

Additional information concerning safety, handling and storage is supplied in the safety data sheet, which can be made available upon request. Such information includes:

- o classification and labelling per regulation for transport and for dangerous substances
- o protective measures for storage and handling

A toxicology summary can also be made available, on a confidential basis, by contacting your local Ashland representative.

regulatory

CAS#: 9004-32-4

ingredient is listed in the China IECIC-2015

other regulatory information is available on request.