



BULLETIN VC-993

# n-hance™ 3215 cationic guar

*a high charge, high molecular weight cationic polymer derived from nature providing excellent conditioning and deposition benefits to hair and skin through its coacervation mechanism*

### formulator benefits

- o based on nature-derived, renewable guar gum
- o 83% natural origin content according to ISO 16128-2:2017
- o multi-functional ingredient delivering thickening and conditioning benefits in shampoo and body wash formulations
- o easily dispersed in water
- o cold processable

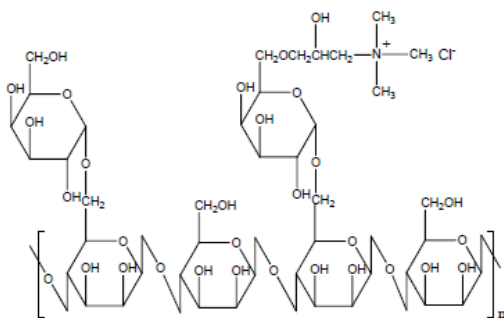
### formulation benefits

- o excellent deposition properties
- o provides good conditioning in formulas for ethnic and damaged hair.
- o soft and luxurious after-feel on skin
- o foam stability, lather, and skin softening from shaving cream formats

## skin and hair care applications

**product forms** shampoos, conditioners, liquid soaps, body washes,  
**formulations by Ashland :** shampoos, body washes

## chemistry



guar hydroxypropyltrimonium chloride

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## typical properties

% nitrogen.....	1.8
charge density, meq/g.....	1.0
viscosity, 2hr (Brookfield RVT 1% aq., spindle #4, 20rpm at 25 °C).....	3,200-5,200 cP
pH, 1%.....	8-10
moisture, % max.....	10

## formulation guidelines

<b>recommended use levels</b>	shampoos: 0.10-0.50 wt% for conditioning. A higher dosage up to 1.5% maybe necessary if additional thickening is required. shower gels / shaving creams: 0.10-0.50 wt% lotions: ≤ 0.25 wt%
<b>temperature/mixing conditions</b>	<ul style="list-style-type: none"> <li>○ cold processable, but tolerant of hot processing</li> <li>○ add the polymer to the vortex of well-agitated water until dispersed.</li> <li>○ continue mixing and adjust pH to ~5.5 and continue mixing until particles dissolved</li> <li>○ add surfactants in order of ionic character, beginning with non-ionics, amphoterics then anionics to avoid incompatibility. Add the remaining formula ingredients, adjusting pH and viscosity if necessary.</li> </ul>
<b>tips from Ashland solvers</b>	N-hance™ 3215 can also be dispersed into non-solvents such as glycerin, propylene glycol, fragrance, or natural oils then added as a premix to the water phase after surfactant addition.

## safety, handling, and storage

Storage is recommended in tightly closed original containers at temperatures between 5°C and 25°C. Additional information concerning safety, handling and storage is supplied in the safety data sheet, which can be made available upon request. Such information includes:

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

A toxicology summary can also be made available, on a confidential basis, by contacting your local Ashland representative or by visiting [Ashland.com](http://Ashland.com).

## regulatory

CAS #: 65497-29-2

INCI name: guar hydroxypropyltrimonium chloride  
listed on China IECIC-2015

Halal certificate available

Other regulatory information is available on request.