



BULLETIN VC-973

styleze™ es-1 polymer

a multifunctional, readily biodegradable polymer delivering long-term style durability, naturally

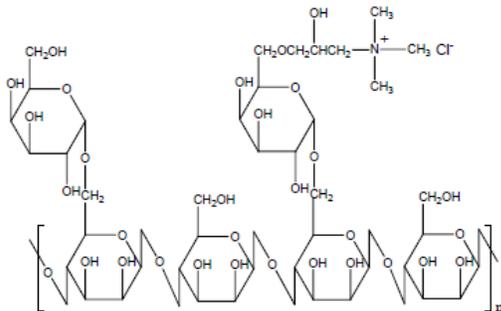
formulator benefits	formulation benefits
<ul style="list-style-type: none"> multifunctional polymer providing both styling and conditioning benefits easily dispersed in water rapidly hydrates after pH adjustment nature-derived, COSMOS-validated readily biodegradable (OECD 301D) 89% natural per ISO 16128-1 & 16128-2 	<ul style="list-style-type: none"> delivers enhanced curl formation and integrity provides 48-hour high humidity hold and style durability supplements styling with conditioning benefits enhances foam properties including bloom and stability

hair care styling applications

product forms mousses, styling creams/lotions, combing creams

formulations by Ashland traditional and spray aerosol mousses, combing creams, cream gels

chemistry



Guar hydroxypropyltrimonium chloride

typical properties

nitrogen, %	1.4
viscosity, 1%,2 hr	45 cP
pH, 1%.....	10
moisture, % max.....	12



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formulation guidelines

recommended use levels	0.25 - 2.0%
temperature/mixing conditions	disperse at RT under agitation, reduce pH 5-7; mix well.
when to add	when working with anionic ingredients, process separately and add once the anionic is properly neutralized and the es-1 is dispersed and pH adjusted
tips from Ashland solvers	can be blended with a variety of chemistries (anionic, cationic, amphoteric and nonionic) allowing for a broad range of performance variants

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:

- 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 Ashland's toxicology department.

regulatory

CAS #: 65497-29-2

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

Halal certificate available

Other regulatory information is available on request.