



BULLETIN VC-957A (supersedes VC-957)

gafquat™ 440, 755N, and HS-100 polymers

Gafquat™ cationic conditioning copolymers are film formers with enhanced substantivity and are specially designed for use in hair care applications like hair mousses, leave-on detangling products and gels, providing multifunctional benefits such as styling and conditioning.

<p>formulator benefits</p> <ul style="list-style-type: none"> creates flexible films compatible with nonionic and cationic polymers water and alcohol compatible can be formulated with nonionic and anionic thickeners 	<p>formulation benefits</p> <ul style="list-style-type: none"> flexible hold styling and conditioning in one step thermal protection from styling applicants contributes to luxurious feeling of hair out of mousses resistant to high humidity excellent detangling effect easy wet combing enhances natural hair luster and feel no tack during dry down, making it applicable for brush and blow dry styling
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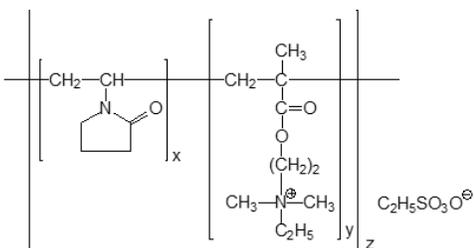
applications

hair styling

product forms mousses, gels, serums, pomades, waxes, pastes, styling sprays, conditioning rinses, leave-in treatments

formulations from Ashland mousses, gels, detangling spray

chemistry



chemistry description

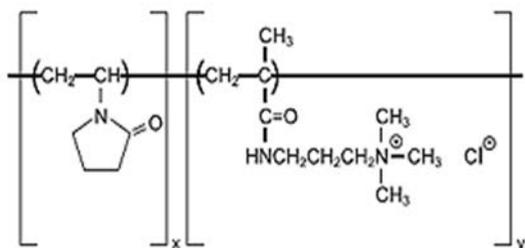
INCI name: Polyquaternium-11

Gafquat™ 755 N polymer, Gafquat™ 440 polymer



RESPONSIBLE CARE®

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INCI name: Polyquaternium-28 Gafquat™ HS-100 polymer

various preservatives are available:

version O preserved with Optiphen

version P preserved with Phenoxyethanol

typical properties

Gafquat™ 755 N	Gafquat™ 440	Gafquat™ HS-100
<u>appearance:</u> clear water-white color, highly viscous liquid	<u>appearance:</u> clear water-white color, highly viscous liquid	<u>appearance:</u> clear water-white color, highly viscous liquid
<u>viscosity @ 25°C:</u> 20.000-60.000cps	<u>viscosity @ 25°C:</u> 20.000-60.000cps	<u>viscosity @ 25°C:</u> 35.000-95.000cps
pH 5.0-6.5	pH 5.0-6.5	pH 7.0-8.0
<u>solids:</u> 19.5-21.5 % in water	<u>solids:</u> 29.5-30.5 % in ethanol	<u>solids:</u> 19-21 % in water

shelf life.....12 months

formulation guidelines

recommended use levels	0.5-2 % solid level
temperature/mixing conditions	Gafquat™ polymers are already in solution and thus do not require special mixing techniques or heat to incorporate into formulas as with polymers that are in the powdered form and need to be hydrated. Neutralization is also not required.
when to add	Gafquat™ polymers should be added after other polymers in the formula that require hydration and/or neutralization. They are formulation flexible and can be added at various points of a process. For example, they can be added in either the hot phase of emulsions during phasing or added in a cold process formulation.
tips from our technical solvers	Gafquat™ polymers are cationic in nature and have full compatibility with cationic and nonionic ingredients. Special processing may be required to add to anionic ingredients such as anionic polymers.

safety, handling, and storage

It is recommended to store Gafquat™ polymer series in a tightly closed container with a minimum amount of head space to prevent skinning on the surface of the polymer.

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 information
- 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

Gafquat™ 755N and 440 CAS No. 53633-54-8
Gafquat™ hs-100 CAS No. 131954-48-8

Other regulatory information can be made available on request.