

BULLETIN VC-959

aquaflex™ fx-64 film former

Aquaflex™ fx-64 is a non-ionic film former specifically designed for use in hair spray applications to deliver stiff, strong hold and brilliant shine and luster.

formulator benefits creates-stiff clear films broad VOC aerosol application no neutralization required easy to incorporate in formulas water and alcohol compatible film modifiers can be employed without reduction in humidity resistance	formulation benefits stiff strong hold at all humidity levels brilliant shine and luster high humidity resistant reduction and control of frizz creates a barrier to shield against exposure to certain common airborne pollutants and the effects of urban living
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applications

hair styling

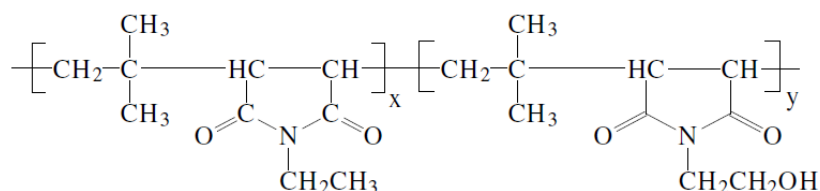
product forms hair sprays, mousses, gels, styling creams/ lotion, pomades, waxes, pastes

formulations from Ashland hair sprays

chemistry

chemistry description

INCI name: Isobutylene/ethylmaleimide/hydroxyethylmaleimide copolymer



typical properties

appearance.....	yellow viscous solution
relative viscosity.....	1.2 – 2.0
pH.....	5.0-7.0
solids.....	40% in water and ethanol
shelf life.....	12 months

formulation guidelines

recommended use levels	0.25-5% solid level aerosol sprays: 0.25-5.0% solids non-aerosol sprays: 0.5-7.0% solids
temperature/mixing conditions	Aquaflex™ FX-64 polymers are provided as a solution and thus do not require special mixing techniques or heat to incorporate into formulas as with polymers that are in the powdered form that need to be hydrated. neutralization is not required.
when to add	Aquaflex™ FX-64 polymers should be added after other polymers in the formula that require hydration and/or neutralization. they are formulation flexible and can be put into various points of a process. they can either be added in the hot phase of emulsions during phasing or added in a cold process formulation.
tips from our technical solvers	Aquaflex™ FX-64 is <ul style="list-style-type: none"> o water and propellant tolerant o compatible with pyrrolidone-based polymers such as PVP and VP/VA o requires corrosion inhibitors to prevent corrosion of unlined tin plate cans o easy to formulate reducing processing time o tolerates a wide range of storage conditions o has low solution viscosity

safety, handling, and storage

It is recommended to store Aquaflex™ FX-64 polymer series in a tightly closed container with a minimum amount of head space to prevent solvent evaporation and 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

Aquaflex™ FX- 64 CAS No. 283148-39-0

Other regulatory information can be made available on request.