

## Spray gel with Eastman AQ™ 48 ultra polymer

This shear-thinning spray gel demonstrates the use of Eastman AQ 48 polymer as a film former and hair fixative with Laponite-XLG silicate to make a translucent gel. The gel holds air bubbles on standing but is extremely shear thinning, providing excellent spray-out from a standard pump-spray container.

| Part | Product name                 | Wt%  | Ingredient/INCI name      | Manufacturer |
|------|------------------------------|------|---------------------------|--------------|
| A    | Deionized water              | 60.2 | Water (aqua)              | —            |
|      | Laponite-XLG <sup>1</sup>    | 2.8  | Sodium magnesium silicate | BYK/Eckart   |
| B    | Deionized water              | 29.4 | Water (aqua)              | —            |
|      | Glycerin                     | 3.0  | Glycerin                  | VVF          |
|      | Eastman AQ™ 48 ultra polymer | 4.0  | Polyester-5               | Eastman      |
|      | EDETA® BD                    | 0.1  | Disodium EDTA             | BASF         |
| C    | Preservative                 | q.s. | —                         | —            |
| D    | Citric acid, 20% in water    | q.s. | Citric acid               | —            |

<sup>1</sup>Rockwood Additives, Southern Clay Products, Inc

## PROCEDURE

### Part A

1. Stir water rapidly while sprinkling in Laponite-XLG.
2. Mix until clear (20–30 minutes).

### Part B

3. Combine water and glycerin.
4. Heat while stirring until temperature reaches about 45°C.
5. Add Eastman AQ 48 pellets and stir without heating until dispersed.
6. Add disodium EDTA and stir until dissolved.
7. Cool to room temperature.
8. Slowly add part B to part A, and mix until homogeneous.

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## Part C

9. Add part C to the mixture of parts A and B, and stir until thoroughly mixed.

## Part D

10. While stirring the combined A/B/C mixture, slowly add part D (citric acid) to adjust pH to 4.2.

(Note: pH will drift up to about 7.0 over 1 to 2 days.)

## Directions for hairstyling demonstration

Spray onto short, damp hair and arrange as desired.



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