

## Product Bulletin

### AQUAGEL 45

#### INCI Name

SODIUM POLYACRYLATE (and) C13-14  
ISOPARAFFIN (and) LAURETH-7

#### Description

AQUAGEL 45 is a rheology modifier, stabilizer, thickener and emulsifier. It swells fast and allows you to create gel or cream immediately without neutralization or heat. It can emulsify all kinds of oil and disperse pigment and physical sunscreen. It is recommended to be used in skin cream, creamy gel, as single or union emulsifier.

#### Specification

Parameter	Value
Appearance	White or semi-transparent emulsion
Solid content (%)	45.0-50.0
Viscosity (25°C, mPa·s)	1000-4500
Viscosity(25°C, 2%soln, mPa·s)	50000-80000
Residual acrylic acid (ppm)	≤20

These values indicate typical specification, they are not intended to be used as product specifications.

#### Properties

- Applicable to all kinds of oil such as vegetable oil, polar and nonpolar oil, without heating or other extra treatment.
- Applicable to formula containing high content silicone.
- Efficiently thicken formula containing polar solvent.
- Particularly effective in wide pH range.
- Resist shearing for a long time with a little viscosity loss.
- Viscosity of aqueous gel decreases when shearing.

- Resist UV radiation with no affect to viscosity.
- Good compatibility with active ingredients in cosmetics.
- Can't resist electrolyte, so extra-thickener is necessary.

#### Applications

Cream, lotion, creamy gel

Make-up foundation and sunscreen cream

Formula containing polar solvent, alcohol and polyol

Formula containing silicone or AHA

#### Formula Guidelines

Typically used at a level of

Used solely:2.0~5.0%.

Used with other emulsifier:0.2~2.0%

- How to handle in formula –

Option 1. Blend AUAGEL 45 with oil phase. Add them into the water phase. Mix uniformly.

Option 2. Heat oil phase and water phase separately to 75-80°C. Add oil phase into water phase while mixing.

Then add AUAGEL 45 into the emulsion at 60°C.

Homogenize moderately for 15-20 minutes.

#### Storage & Handling

**Standard Packing:** 35kg/drum

**Storage:** Keep in Cool, Dry, Ventilated and Lightless Place.

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