

ACRYPOL 980
(Carbomer Homopolymer Type C)

INCI Name: Carbomer

CAS No: 9003-01-4

US DMF Registration: 20139, 9th January, 2007

Description:

Acrypol 980 is a synthetic high molecular weight cross linked polyacrylate polymer. It is very efficient Rheology modifier, which provides high viscosity and forms sparkling clear water or hydro-alcoholic gels.

It is very efficient thickener among all the grades, having an extremely short flow property. It is suitable for use in high viscous liquids or gels for cosmetics and pharmaceutical industries. It is benzene free grade of Carbomer 940 USP/NF.

Typical Applications:

- Hair styling gel
- Hydro-alcoholic gel
- Moisturizing gel
- Bath gel
- Tooth paste
- Shampoos
- Shaving gel, After shaving lotion
- Moisturizing cream and sun screen lotions
- Pharmaceutical gels & ointment.
- Cleansing cream
- Skin freshener.

Typical Physical Properties:

Parameter	Typical Properties
Appearance	White, fluffy powder.
Odor	Mildly acidic.
Brookfield Viscosity (25°C, 0.5% aqueous gel neutralized)	40,000 – 60,000 mPa.s.
Carboxylic acid content	Between 56.0 % to 68.0%
Loss on Drying	NMT 2.0 %
Residual Solvent	
Ethyl acetate	NMT 0.5%
Cyclohexane)	NMT 0.3%

Advantages:

- High viscosity at low concentration.
- There is no significant effect of temperature on viscosity performance.
- Carbomer gives uniform viscosity performance.
- Excellent shelf life.
- Years of successful use of Carbomer.
- Resists bacterial attack and do not supports mould growth.
- Although primarily used in aqueous system with neutralization, it can also be used in solvent systems, with or without neutralization.
- Smooth and luxurious feeling.

Regulatory Status:**United States (USP/NF)**

Carbomer Homopolymer Type C

Europe (Ph. Eur.)

Carbomers (The Carbomers Monograph in the European Pharmacopoeia stipulates that benzene is limited to 2 ppm)

Japan (JPE)

Carboxyvinyl Polymer

Neutralizers:

Acrypol polymers are dry, highly coiled acidic molecules. After dispersion in water, it begins to hydrate and partially uncoil. Maximum thickening can be achieved by converting the acidic Acrypol polymer to neutral pH.

Neutral pH is easily achieved by neutralizing the Acrypol range with recommended neutralizers to adjust the pH of Acrypol range solution are:

- Sodium hydroxide (NaOH),
- Potassium hydroxide (KOH),
- Triethanolamine (TEA),
- Ammonia (28%) & other alkalies.

Toxicity:

Acrypol range is high molecular weight polymer. It does not absorbed by body tissues and is totally safe for human oral consumption.

Test for toxicological tolerance shows that it does not have any pronounced, physiological action and is non-toxic.

Storage and handling:

Store in a tightly closed container and away from direct contact with water and excessive humidity condition.

Shelf life:

Three years from the date of manufacturing in intact condition.

Packing:

20 kg net in corrugated box with polyethylene liner.