

ACRYPOL 971G

CAS No: 9003-01-4

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Description:

Acrypol 971G is a granular, synthetic high molecular weight cross linked polyacrylate polymer, which was designed for use in oral solid dosage applications.

Acrypol 971G is a free-flowing granular form of Acrypol 971P, for use in direct compression formulations. The granules are free flowable, have increased bulk density, and contain minimal amounts of very small particles that can cause dusting and/or static adherence compared to the powder polymer.

Acrypol 971G can be combined with other extended release excipients to improve the flow properties of the formulation. Additionally, powder and granular grade acrypol polymers can be combined in a formulation to achieve various release profiles.

Typical Applications:

- Sustained release formulation
- Suspending agent for oral liquid
- In direct compression formulations
- To improve the flow properties of the formulation
- To achieve various release profiles.

Typical Physical Properties:

Parameter	Typical Properties
Appearance	White, free flowing granules.
Odor	Mildly acidic
Brookfield Viscosity (25°C, 0.5% aqueous gel neutralized)	4,000 -8,000 mPa.s.
pH 1 wt% dispersion	2.5 -3.0
pKa	6.0 ± 0.5
Carboxylic acid content	Between 56.0 % to 68.0%
Loss on drying	NMT 2.0 %
Temperature Stability	Upto 75°C

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.

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.