KIMA CHEMICAL CO.LTD

Add:Zhangdian,Zibo, Shandong, P.R.China

Tel: +86-533-6281218

Email:sales@kimachemical.com

www.kimachemical.com



Low-Substituted Hydroxypropyl Cellulose

» Low-Substituted Hydroxypropyl Cellulose is a low-substituted hydroxypropyl ether of

cellulose. When dried at 105° for 1 hour, it contains not less than 5.0 percent and not

more than 16.0 percent of hydroxypropoxy groups (=OCH₂CHOHCH₃).

Packaging and storage— Preserve in tight containers.

Identification—

A: Shake about 20 mg with 2 mL of water and cautiously add 1 mL of a solution of

anthrone in sulfuric acid (350 µg per mL): a blue to greenish blue color develops at the

zone of contact.

B: Shake thoroughly 0.1 g with 10 mL of water. Add 1 g of sodium hydroxide, and shake

until it becomes homogeneous. Save 5 mL of this solution for *Identification* test C. To 0.1

mL of this solution add 9 mL of 32 N sulfuric acid, and shake. Heat in a water bath for 3

minutes, accurately timed, and immediately cool in an ice bath. While the mixture is cold,

carefully add 0.6 mL of ninhydrin TS, and mix. Allow to stand at room temperature: the red

color that appears immediately turns to violet within 100 minutes.

C: Shake 5 mL of the solution prepared for *Identification* test B with 10 mL of a mixture of

acetone and methanol (4:1): a white, flocculent precipitate is formed.

<u>Loss on drying</u> ⟨ 731 ⟩ — Dry it at 105° for 1 hour: it loses not more than 5.0% of its

weight.

Residue on ignition (281): not more than 0.5%.

Chloride (221) — Shake thoroughly 0.50 g with 30 mL of boiling water, heat on a water

bath for 10 minutes, and filter the supernatant by decantation while hot. Wash the residue

thoroughly with 50 mL of boiling water, combine the washings with the filtrate, and add

water to make 100 mL after cooling: a 10-mL portion of this solution shows no more

chloride than is contained in 0.25 mL of 0.02 N hydrochloric acid (0.36%).



KIMA CHEMICAL CO.LTD

Add:Zhangdian,Zibo, Shandong, P.R.China

Tel: +86-533-6281218

Email:sales@kimachemical.com www.kimachemical.com



Heavy metals, Method II (231): 0.001%.

Assay— Proceed as directed for the determination of hydroxypropoxy in the *Assay* under *Hypromellose 2906*, except to substitute Low-Substituted Hydroxypropyl Cellulose for Hypromellose 2906 throughout. [NOTE—Since methoxy is not determined, the addition of methyl iodide is not needed.]