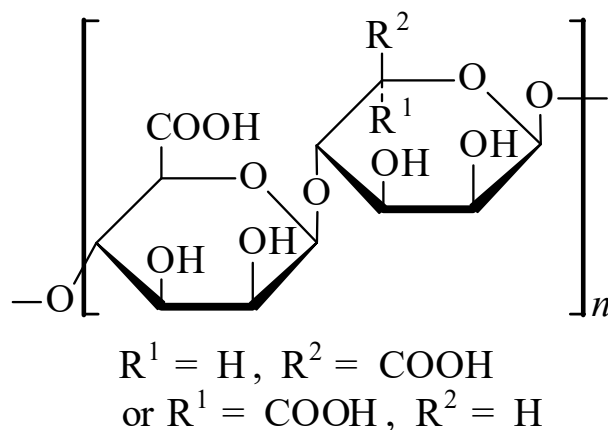




>>Entry Name: Alginic acid, BAN

ENTRY UNDER REVIEW

Synonym(s): Gum levan. Levan gum. Kelacid. E400



CAS Registry Number: 9005-32-7

Related CAS Registry Numbers(s): 9005-31-6 9005-35-0 9005-36-1 9005-37-2 9005-38-3 9019-42-5

Molecular Formula: $\text{C}_6\text{H}_8\text{O}_6$

Molecular Weight: 176.126

Accurate Mass: 176.03209

Percentage Composition: C 40.92%; H 4.58%; O 54.50%

General Statement: A polymer consisting of various proportions of β -D-Mannuronic acid and α -L-Guluronic acid linked 1 $\rightarrow$ 4 and arranged in a block fashion. Polymeric. Minimum formula given.

Biological Source: Occurs as the major matrix polysaccharide in brown seaweed (Phaeophyceae) as an insol. complex of K, Na, Ca and Mg alginates

Use/Importance: Alginates are used to improve food texture, e.g. ice cream, pie fillings etc., as a tablet disintegrant and as paper coatings. Pharmaceutical aid for preparation of water-miscible pastes, creams and gels. Co-administered with antacid or H_2 -receptor agonist for management of gastro-oesophageal reflux. Food additive: emulsifier, stabilizer, thickener

Optical Rotation: $[\alpha]_{\text{D}} -120$ (as Na salt in H_2O)

Other Data: Approx. 200 grades of the acid and its salts comly. available. Alginates with the highest guluronic acid content display the strongest gel-forming activity.

Aldrich: A2830-9

Fluka: 5550

Sigma: A7003

Other: CarboMer Inc. (various grades)

>>Derivative: Na salt

Synonym(s): Algin. E401

CAS Registry Number: 9005-38-3

Physical Description: Pale yellow-brown powder

Solubility: BERDY SOL: Sol. H_2O ; poorly sol. EtOH, hexane

UV: [neutral] λ_{max} 260 () (H_2O) (Berdy)

Aldrich: 18094-7

Fluka: 71240

Rare Chemicals Library: S41893-5

Sigma: A7128

Other: CarboMer Inc.

References:

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