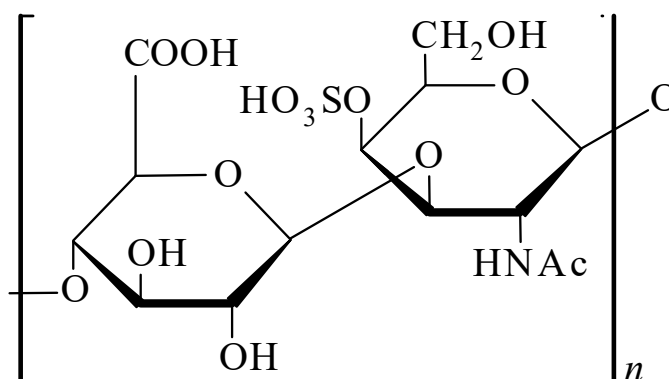




>>Entry Name: Chondroitin sulfate

Synonym(s): Chondroitinsulfuric acid



Related CAS Registry Numbers(s): 9082-07-9 12678-07-8 24967-93-9 25322-46-7

Molecular Formula: $C_{14}H_{21}NO_{14}S$

Molecular Weight: 459.384

Accurate Mass: 459.068279

Percentage Composition: C 36.60%; H 4.61%; N 3.05%; O 48.76%; S 6.98%

General Statement: Mucopolysaccharides containing D-Glucuronic acid and sulphated N-Acetyl-D-galactosamine. MW = 20,000-50,000. Polymeric. Minimum formula given. Type A (illus.) is the 4-sulfate and type C is the 6-sulfate

Biological Source: Main source human cartilage and aorta (type A), heart valves (type C)

Biological Use/Importance: Component of the heparinoid danaparoid. Used in the treatment of ischaemic heart disease, osteoporosis and hyperlipidaemias. Also used as an adjunct to ocular surgery

Optical Rotation: $[\alpha]_D -26$ (H₂O) (type A). $[\alpha]_D -12$ (H₂O) (type B)

Hazard & Toxicity: Exp. teratogen

>>Derivative: Na salt

Synonym(s): Chondroitin sulfate sodium, JAN

CAS Registry Number: 39455-18-0

References:

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Lindahl, U. *et al.*, *Annu. Rev. Biochem.*, 1978, **47**, 385
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