

9 april 2024

## Specification

Sodium hyaluronate (produced from *Streptococcus equisubsp. Zooepidemicus*)

### References

Virksomheds bilag 1  
Merck [[Sigma-Aldrich](#)]  
Serra et al. 2023 [[Link](#)]  
CAS SciFinder<sup>n</sup> [[Link](#)]

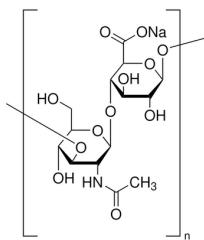
**Navn** Sodium hyaluronate

**CAS No** 9067-32-7

**Synonyms** Hyaluronic acid, sodium salt

**Description** Bacterial glycosaminoglycan polysaccharide. Hyaluronic acid is a naturally occurring biopolymer. It is a linear, non-sulfated glycosaminoglycan that is composed mainly of repeating units of N-acetylglucosamine and glucuronic acid linked by  $\beta$ - (1-4) and  $\beta$ - (1-3) glycosidic bonds.

**Structural formula** Poly( $\beta$ -glucuronic acid-[1 $\rightarrow$ 3]- $\beta$ -N-acetylglucosamine-[1 $\rightarrow$ 4]), alternating.



**Molecular weight** Hyaluronic acid is composed repeating units of N-acetylglucosamine and glucuronic acid linked by  $\beta$ - (1-4) and  $\beta$ - (1-3) glycosidic bonds. The disaccharide presents a molecular weight of around 400 Da. A hyaluronic acid chain, produced via fermentation, can be composed of up to 10,000 disaccharides, which means a molecular weight of around  $4.0 \times 10^3$  kDa. Commercial food grade hyaluronic acid products come in a very wide range of molecular weight depending on the final products to be used in.

**Production** *Streptococcus zooepidemicus* produces a high molecular weight hyaluronic acid. It does not require the use of toxic chemicals or solvents in the media and downstream processing, resulting in a pure and safe end-product.

**Assay** 95% weight.

**Appearance** Light cream solid powder.

**Solubility** Soluble in water

**pH** 5.5 – 7.5 in 1% solution.

**Melting/boiling point** No data/information available

**Specific gravity** No information available

**Partition coefficient – n-octanol/water** No data available.

**Flash point** No information available.

**Stability** Stable under normal conditions.

**Purity Microbial** No information available on microbiological purity

**Purity Contaminants** No information available on heavy metals, pesticide, or other hazardous substances

## Identification

### IR Absorption Spectrum for 9067-32-7

