

## Hyaluronic Acid MMW

### Specification Sheet

**Description:** Hyaluronic acid is a natural polysaccharide (large sugar molecule) that occurs in various tissues (skin, synovial fluids of joints, connective tissues). Responsible for tissue hydration, lubrication, & tissue stability, holds 500 times its own weight of water. The MMW (medium molecular-weight) form is made by enzymatically cleaving high-molecular weight hyaluronic acid into smaller fragments. Molecular weight 100-500kDa. White powder, no odor. Soluble in water, insoluble in ethanol and organic solvents. pH 6-7.5 in 0.1% aqueous solution. Shelf-life up to 2 years if stored protected from humidity, sunlight and microbial contamination.

**CAS:** 9067-32-7

**INCI Name:** Sodium hyaluronate

**Benefits:**

- One of the most powerful moisturizing agent available
- Medium molecular weight hyaluronic acid has advantages of high-molecular hyaluronic acid (has also thickening properties) but also those of low-molecular weight hyaluronic acid (has good skin-penetrating properties).
- Provides smoothness and softening to the skin
- Can reduce the appearance of wrinkles
- Ideal ingredient after skin peels

**Use:** Typically used at 0.1-5%. MMW hyaluronic acid is readily soluble in water and has slight thickening properties (forms thin gels). Hyaluronic acid needs to be carefully sprinkled into the water under constant high-speed stirring (preferably with a hand mixer or vortex mixer). The mixture starts then thickening and becomes a thin gel. At the point no additional hyaluronic acid can be added as there is no water left for hyaluronic acid to be dissolved in (additional hyaluronic acid would only form lumps). Solubility can be increased by heating up the solution to maximum 60oC (140oF).

**Applications:** Hydrating gels, moisturizing creams & lotions, anti-aging & anti-wrinkle products, pre/after sun lotions, protecting / nourishing & moisturizing skin care products, products for sensitive or dry skin.

**Country of Origin:** China (ISO certified factory)

**Raw material source:** Glucose, soy peptone and Streptococcus zoepidemicus

**Manufacture:** Hyaluronic acid is produced biotechnologically through microbial fermentation with the aid of the bacterium Streptococcus zoepidemicus and peptones and serums.

**Animal Testing:** Not animal tested

**GMO:** GMO-free

**Vegan:** Does not contain animal-derived components