# **Bioactives**

# HYA-ACT<sup>™</sup>

# The Hyaluronic acid line for the ultimate beauty boost









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# HYA-ACT<sup>™</sup>: The ultimate beauty boost

No ingredient has taken the world of skincare by storm quite like hyaluronic acid has in recent years. A firm favorite in injectable skincare treatments for some time – now, from serums to moisturizers, its hydration and volumizing benefits are highly sought after in topical treatments too.

Hyaluronic acid, also referred to in skincare as hyaluronate or HA, is a water-loving polysaccharide already present in the skin. With age, hyaluronic acid in the skin decreases quite sharply, resulting in a loss of hydration, volume and plumpness. Lines and wrinkles also appear, and skin is left looking dull and lackluster.

Usually, when hyaluronic acid is added to skincare products, its humectant properties draw moisture into the skin, helping to combat dryness and dullness.

What many people don't realize is that hyaluronic acid comes in various molecular sizes. Larger molecules stay on the surface and give the skin a 'dewy' look, while smaller molecules penetrate deeper into the skin to deliver their hydration benefits.<sup>1</sup> DSM has been exploring the beauty potential of hyaluronic acid in personal care since 1978. Its new product line, HYA-ACT™, is a powerhouse of various hyaluronic acid forms:

- HYA-ACT<sup>™</sup> M (Medium Molecular Weight of 1.0–1.3 MDa) provides immediate hydration and strengthens the skin barrier.
- HYA-ACT<sup>™</sup> S (Small Molecular Weight of 200–400 KDa) locks in moisture for an even greater hydration boost and calms reddened skin.
- HYA-ACT<sup>™</sup> XS (Very Small Molecular Weight of 37–56 KDa) retains moisture from the inside and plumps out fine wrinkles.

HYA-ACT<sup>™</sup> M, HYA-ACT<sup>™</sup> S and HYA-ACT<sup>™</sup> XS are also 100% natural origin, Halal certified and Microbiome-friendly.<sup>2</sup>

# DSM has been exploring the beauty potential of hyaluronic acid in personal care since 1978



1 Essendoubi et al, skin research and technology 2015, 1-8

2 hiips://www.mymicrobiome.info/mymicrobiome-standard-18-10-tests-skin-microbiome-friendly.html

3 DSM Campiche et al, International Journal of Peptide Research and Therapeutics volume 26, pages 181-189 (2020)

# A powerhouse of different hyaluronic acid forms that delivers various consumer benefits

# HYA-ACT<sup>™</sup> M (Medium Molecular Weight)

# Provides immediate hydration and strengthens the skin barrier by building a superior protecting film

#### Features & benefits

- Medium molecular weight hyaluronic acid of 1.0–1.3 MDa
- INCI name: Sodium Hyaluronate
- Microbiome-friendly certified (tested according to MyMicrobiome test<sup>2</sup>)
- Recommended dosage: 0.01–1.0%



**Results:** A single application enhances skin hydration after just 1h (*in vivo*)

#### Transepidermal Water Loss



**Results:** Strengthens protective skin barrier, with up to a 26% reduction in TEWL (*in vivo*)

# HYA-ACT<sup>™</sup> S (Small Molecular Weight)

# Locks in moisture for an even greater hydrating boost

### Features & benefits

- Small molecular weight hyaluronic acid of 200–400 KDa
- INCI name: Sodium Hyaluronate
- Microbiome-friendly certified (tested according to MyMicrobiome test<sup>2</sup>)
- Recommended dosage: 0.01–1.0%



**Results:** Up to 77% hydration boost by adding HYA-ACT<sup>™</sup> S (0.15%) to HYA-ACT<sup>™</sup> M (0.15%)

Transepidermal Water Loss



**Results:** HYA-ACT<sup>™</sup> S (0.15%) and HYA-ACT<sup>™</sup> M (0.15%) fortify the skin's natural barrier, with an up to 32% reduction in TEWL

# HYA-ACT<sup>™</sup> XS (Very Small Molecular Weight)

# Retains moisture from the inside and plumps out fine wrinkles

### Features & benefits

- Very small Molecular weight hyaluronic acid of 37–56 KDa
- INCI name: Hydrolyzed Hyaluronic acid
- Microbiome-friendly certified (tested according to MyMicrobiome test<sup>2</sup>)
- Recommended dosage: 0.01–1.0%

# Skin hydration



**Results:** Provides skin with a continuous burst of intense hydration (*in vivo*)

#### Wrinkle reduction



**Results:** Reduces the appearance of wrinkles after 15 and 30 days of treatment (*in vivo*)

# For more information, please visit www.dsm.com/personal-care

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