Today's consumers acknowledge the role vitamin C plays in neutralising free radicals that are responsible for premature skin ageing, as well as its essential role in promoting collagen synthesis to maintain supple skin. Advancements in cosmetic science have led to the development of multi-functional Vitamin C derivatives that address formulating challenges and instabilities while offering additional skin benefits.

As explored in our previous blog, *Unlock the Benefits of Vitamin C Derivatives for Glowing, Healthy Skin*, Vitamin C derivatives are widely used for their ability to:

- Act as powerful antioxidants
- Promote even skin tone by inhibiting tyrosinase activity
- Boost collagen production, reducing fine lines and wrinkles
- Repair sun damage and strengthen the skin barrier

Hydration, Antioxidant Synergy and Skin Sensitivity

Incorporating Vitamin C into creams, rather than serums, using waxes, emollients, and hydrating actives provides enhanced hydration, making them ideal for dry or mature skin types. These formulations often include antioxidants like ubiquinone, resveratrol, rutin, and ferulic acid, stabilising Vitamin C and boosting its efficacy. These synergies enhance the skin's defense against environmental stressors and promote a more radiant complexion.

Glyceryl Ascorbate

Among these, **Glyceryl Ascorbate derivatives** stand out as a game-changer in skincare innovation. Our Japanese supplier, **Seiwa Kasei**, has developed the **iVC range**—a collection of seven highly stable, moisturising glyceryl ascorbate derivatives that elevate the performance of Vitamin C in skincare formulations.

Unlike traditional ascorbic acid, glyceryl ascorbate derivatives offer long-term stability in formulations, including gels, while also delivering deep hydration.

One key advancement is the introduction of 3-Laurylglyceryl ascorbate (Seiwa Kasei tradename iVC 3LGA), which is extremely stable, and a patented ingredient that increases glutathione production in the skin, as well as enhances this super-antioxidant's efficacy in the skin. 3-Laurylglyceryl Ascorbate improves the skin barrier function, which makes it particularly suitable for individuals with sensitive

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skin. It prevents the appearance of stimuli-induced skin redness.

Below, we highlight the specific benefits of each derivative:

Product	INCI Name	% Activity	Properties	pH Range	Dosage Level (%)	Additional Benefits
iVC 2GA	Glyceryl Ascorbate	100	Water-soluble, non-ionic powder	6 – 9	2	• Moisturising • Comfortable sensorial texture • Long-term stability • No discolouration when used with titanium dioxide for blue light protection
iVC DGA	Aqua (and) Glycerine (and) Bis-Glyceryl Ascorbate	50	Water-soluble, non-ionic liquid	3 – 6	4	• High water-retaining ability • Suitable for concentrated vitamin C serums – no buffer required • Enhances skin barrier formation
iVC 3GA	Aqua (and) Glycerin (and) 3-Glyceryl Ascorbate	30	Water-soluble, slightly anionic liquid	2 – 5	7	• Suitable for concentrated vitamin C serums • Cost-effective • Anti-photoageing effect (blue light etc.)

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Product	INCI Name	% Activity	Properties	pH Range	Dosage Level (%)	Additional Benefits
iVC 3LGA	Butylene Glycol (and) 3-Laurylglyceryl Ascorbate	10	Amphiphilic, slightly anionic liquid	3 – 6	1	• Alleviates sensitive skin • Activates intracellular anti-oxidant system • Enhances glutathione production • Activates ceramide synthesis • Enhances stratum corneum lamellar structure
iVC MGA	Butylene Glycol (and) Myristyl 3-Glyceryl Ascorbate	10	Amphiphilic, non-ionic liquid	3 – 6	1 – 3	• Pore minimiser • Anti-bacterial activity against C. acnes • Suppresses lipase and 5 α-reductase activity
iVC HGA	Aqua (and) Hexyl 3-Glyceryl Ascorbate (and) Glycerine (and) Water	20	Water-soluble, non-ionic liquid	3 – 6	5	• Inhibits melanin transport • Inhibits the accumulation of melanin in keratinocytes • Activates the autophage system in melanocytes
iVC GCA	Pentylene Glycol (and) Cetyl 2-Glyceryl Ascorbate	32	Amphiphilic, non-ionic	NA	NA	• Emulsifier

The Latest Trends in Vitamin C Skincare

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With consumer demand growing, skincare brands are innovating with vitamin C formulations. The latest trends include:

- **Next-Generation Stability:** Traditional vitamin C is notoriously unstable, but modern derivatives like glyceryl ascorbate offer enhanced longevity and effectiveness without discolouration or rapid degradation.
- **Multi-Tasking Blends:** Skincare brands are increasingly combining vitamin C with complementary actives such as ferulic acid, sodium hyaluronate, and bisabolol to enhance hydration, barrier support, and antioxidant protection.
- **Slow-Release Formulations:** To counteract irritation and increase efficacy, slow-release vitamin C technology allows a sustained delivery of antioxidants, ensuring long-lasting skin benefits.
- **Blue Light Protection:** With digital exposure becoming a concern, brands are incorporating vitamin C with ingredients that protect against blue light and oxidative stress. The iVC 2GA from Seiwa Kasei is stable when used with titanium dioxide.
- **Hydration-Focused Serums:** Modern vitamin C serums now include humectants like glycerin and hyaluronic acid, ensuring high efficacy without drying the skin.

Top Vitamin C Serums in 2025 and Actives to improve their Performance

Leading skincare brands are leveraging innovative combinations of Vitamin C derivatives with complementary actives for enhanced efficacy. Our ingredient portfolio aligns with these trends, allowing for the creation of next-generation serums. Below are some of 2025’s most sought-after formulations and the complementary actives used with the vitamin C derivatives:

- **Best Overall Vitamin C Serum** (SkinCeuticals CE Ferulic): *Ferulic Acid, Sodium Hyaluronate*
- **Best Vitamin C Booster** (Paula’s Choice C15 Super Booster) – *Alpha-Bisabolol, Sodium Hyaluronate*
- **Best for Dry Skin** (Dr. Loretta Repair Serum) – *Alpha-Bisabolol, Sodium Hyaluronate*
- **Best Glowy Finish** (Naturium Vitamin C Complex Serum) – *Sodium Ascorbyl Phosphate, Fruit Extracts*
- **Best for Dull Skin** (Tatcha Violet-C Brightening Serum) – *Bis-Glyceryl Ascorbate, Licorice Root Extract, Sodium Hyaluronate*
- **Best for Acne-Prone Skin** (La Roche-Posay 10% Pure Vitamin C Face Serum)

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– *Salicylic Acid, Sodium Hyaluronate*
- **Best for Sensitive Skin** (Alastin C-Radical Defense Antioxidant Serum) – *Ubiquinone (Coenzyme Q10), Alpha-Bisabolol*

As skincare continues to evolve, multi-functional Vitamin C derivatives are proving to be a game-changer. By overcoming the limitations of traditional Vitamin C, they offer enhanced performance, better stability, and a broader range of benefits tailored to different skin needs. Whether targeting hydration, brightening, or anti-aging, these next-generation ingredients pave the way for more effective and versatile skincare solutions.

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