Import and distribution for Serbia: Farmadria DOO
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TECHNICAL DATA SHEET

Product name: Pentylene Glycol
INCI name: Pentylene Glycol
CAS: 5343-92-0
Synonyms: 1,2-dihydroxypentane, 1,2-pentanediol, and pentane-1,2-diol.
Chemical class: Alcohol
Functional category: Emulsion stabilizer, conditioner, antimicrobial agent
Origin of the raw material: Germany

Description: Pentylene Glycol is a natural polyvalent low-molecular-weight alcohol. It enhances the performance of cosmetic active substances, improving the bioavailability of both lipophilic and hydrophilic substances, as well as the activity of cosmetic active substances (CAS) present in the final product. In vivo studies have shown that, thanks to its alcohol structure, it acts as an excellent humectant, making it an effective moisturizing agent for the skin. By reducing the particle size of the emulsion system, it ensures less coalescence (particle merging), contributing to the stabilization of oil-in-water (O/W) emulsions. It is an excellent solubilizer and aids in dissolving various substances, including fragrances. It enhances the transparency of clear formulations such as water gels and toners. The pentanediol molecule acts synergistically with many preservatives, increasing their effectiveness and allowing them to be used in lower concentrations. It complies with the requirements of the "green" concept in cosmetic products and is COSMOS certified. It is a colorless liquid, nearly odorless, and soluble in both water and oils.

Benefits:

- ***Humectant:*** Pentylene Glycol is a skin moisturizer, attracting water from the environment and deeper layers of the skin, keeping it soft and elastic.
- ***Conditioner:*** Pentylene Glycol has emollient properties, facilitating the application and spreadability of the final product.
- ***Preservative:*** Pentylene Glycol can act as a preservative in cosmetic formulations, preventing the growth of bacteria and fungi, extending the product's shelf life.
- ***Solvent:*** It acts as a solvent, helping various ingredients in cosmetic formulations dissolve and stabilize, improving the consistency and performance of the final product.

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• ***Improved penetration:*** Pentylene Glycol can enhance the penetration of active ingredients into the skin, particularly useful in formulations where better absorption is needed for improved results.

• ***Soothing effect:*** It has a soothing effect on the skin, reducing redness and inflammation.

• ***Compatibility:*** Considered relatively safe and non-irritating, compatible with a wide range of cosmetic ingredients, making it suitable for use in various cosmetic products, including creams, lotions, serums, and more.

Usage: It is part of the water phase of emulsion systems and is typically used in concentrations of 3 to 5%.

Applications: Pentylene Glycol is often used as a humectant in moisturizing creams and lotions. In serums, it can enhance the penetration of active ingredients into deeper layers of the skin. It can be found in facial cleansers, such as micellar waters and cleansing gels. In deodorants, it can help keep the skin under the arms hydrated and reduce irritation. It may be used in nail care products to soften and hydrate the cuticles. In sun care products, it helps preserve hydration and prevent skin dryness from sun exposure. Sometimes used in corrective makeup, such as liquid foundations and concealers, to improve texture and product applicability on the skin. It can also be found in shampoos and conditioners to enhance hair hydration and softness.

Animal testing: The substance has not been tested on animals.

GMO: Not genetically modified.

Vegan: Does not contain components of animal origin.

Customs tariff number (HS Code): 29053995