TECHNICAL DATA SHEET

PRESERVATIVE LSB

INFORMATION ON SUBSTANCE / MIXTURE

INCI	Levulinic Acid, Sorbic Acid, Benzoic Acid, Tocopherol
Description	Offers broad spectrum protection in a diverse range of products against Gram-positive & Gram-negative bacteria, yeast and molds. Globally approved for use in all rinse-off and leave-on applications
Key product artibutes	Organic acid preservative system. Broad spectrum activity, 80% naturally derived, Clear liquid for ease of formulation, Can be used in both rinse-off and leave-on formulations with a pH range of 2-6. Water soluble, Compatible with a wide variety of formulation ingredients as well as most types of cationic, nonionic and anionic systems. Excellent safety profile.
Raw material category	Preservative
Formulation Considerations	Typical Use Levels - Depending on the application and system pH, Preservative LSB will often provide excellent broad-spectrum protection at use levels between 0.4 - 1%. The actual level of treatment to protect any particular system depends on a variety of factors including, but not limited to, the initial level of microbiological contamination, the components of the system, the likelihood of exposure to repeat microbiological challenges, and the pH of the system. Because every formulation is unique, it is highly recommended that you confirm the efficacy and stability of Preservative LSB in the final formulation. Addition to the Formulation - Preservative LSB is a liquid product that is soluble in aqueous systems (at typical use-levels) and can be easily incorporated into most formulations. This water solubility provides excellent flexibility to formulators. Preservative LSB should be added at a point where there is good agitation or mixing to achieve homogeneous distribution throughout the formulation. Effect of Temperature - Preservative LSB is stable for several hours at temperatures up to 65°C. Preservative LSB should be added after the formulation has been cooled to this temperature or lower. Effect of pH – The efficacy and performance of Preservative LSB is most directly impacted by the final pH of the end use product. Testing has shown that Preservative LSB can maintain efficacy up to approximately pH 5.5. Higher pH levels will require higher use levels of Preservative LSB. Compatibility - As with all preservatives, it is advised to check compatibility in the development of new products

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Physical parameters

Appearance	Liquid
Color	Yellowish

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Odor	Characteristic, low odor
Relative density at 20°C	1.05 - 1.12
pH (as is)	acidic

Chemical parameters

Levulinic Acid CAS No. 123-76-2 EINECS No. 204-649-2	79,9 %
Sorbic Acid CAS No. 110-44-1 EINECS No. 203-768-7	5 %
Benzoic Acid CAS No. 65-85-0 EINECS No. 200-618-2	15 %
Tocopherol CAS No. 59-2-9 EINECS No. 200-412-2	0,1%

TRANSPORT, STORAGE and SHELF LIFE

Storage conditions	Store in closed packaging, away from light, at a steady and moderate temperature, approx 15-25°C. Mix before use.
Shelf Life	36 months, in closed packaging and the recommended conditions.
Customs code	-

LEGISLATION, STATEMENTS

Certification	Cosmos approved, Halal
Nanomaterials	No intentionally added ingredient meets the definition of a nanomaterial.
Animal testing	We confirm that the above mentioned material and its component parts have not been the subject of animal testing or retesting for cosmetic purposes.
BSE / TSE status	Animal origin is not involved, BSE / TSE is not applicable to this product.
Genetically modified organisms (GMO)	Considering the origin of the product, GMO is not applicable to this product. GMO is not involved in the manufacturing process of this product.

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CMR substances, with reference to Regulation (EC) 1223/2009 Article 15	The ingredients in this product are not classified as CMR according to Regulation (EC) 1272/2008. Legislative status of this product is not concerned by CMRs.
Nanomaterials	Product is a liquid, it is not a nanomaterial in accordance with the definition in Regulation (EC) 1223/2009. Considering the fact it is a liquid, particle size considerations are not applicable to this product.
Microbiological quality	Material is a preservative system itself, no growth is expected at all. A microbiological specification is not applicable to this product.
Suitability for vegans	Considering the non-animal testing status, and the absence of any animal-derived material, the product is considered suitable for vegans.
Origin information	Levulinic Acid – Waste corn cob (100% natural), Benzoic Acid – Synthetic, Sorbic Acid - Synthetic
Substances of Very High Concern (SVHC)	No ingredients are intentionally present appearing (at time of writing) on Annex XIV or on the Candidate List of Substances of Very High Concern for Authorisation in the framework of REACH (Regulation (EC) No 1907/2006). Furthermore, considering the nature of this product and the manufacturing process, the presence of an impurity appearing on the aforementioned Annex XIV or Candidate List is not expected in a concentration of 0.1 % or greater.

DISCLAIMER

All warranty claims in respect to the conformity of our product are subject to our General Terms and Conditions of Sale and Delivery. The data listed above reflects the results of the manufacturer or our supplier quality tests. We do not hereby make any express or implied warranty, whether for specific properties or for fitness for any particular application or purpose. All values are valid for the product when dispatched from the works. We recommend you perform your own quality and or identification checks on receipt.