

Amino Acid Based Highly-Polar Emollient ELDEW® SL-205

ELDEW® SL-205 is an amino acid derived highly-polar emollient that Ajinomoto Co., Inc. has developed based on our amino acid technology.

It has the ability to readily dissolve poorly soluble materials, such as organic UV filters and active ingredients which give formulators greater flexibility in developing new products.

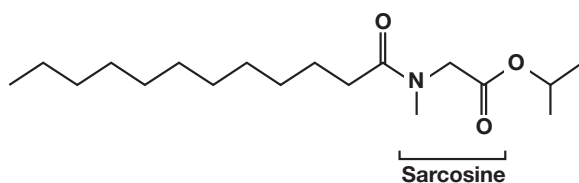
Description

ELDEW® SL-205 is a colorless to light yellow fluid emollient.

Origin

ELDEW® SL-205 is a condensation product of palm fatty acid, plant derived sarcosine and isopropanol.

Molecular Structure



Characteristics of ELDEW® SL-205

- ELDEW® SL-205 is a new amino acid based highly-polar emollient.
- It has an excellent dissolving ability against organic UV filters and active ingredients.
- It allows low solubility materials to be easily incorporated into formulations, thereby increasing stability.
- It is an emollient with low viscosity, light touch, low odor, and good spreadability which can be used in a variety of skin care, hair care, sun care and make up applications.
- It has a high affinity for pigments.
- It exhibits good skin compatibility and is biodegradable.

● Dissolving property I

ELDEW® SL-205 can dissolve low-solubility ceramide, etc.

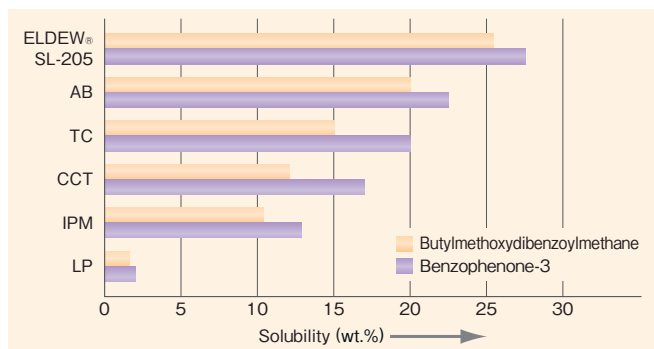
	Ceramide (mixture)			γ -Orizanol			Cholesterol		
	0.05%	0.10%	0.15%	2.0%	5.0%	10.0%	2.0%	5.0%	10.0%
ELDEW® SL-205	S	S	S	S	S	S	S	S	S
CCT	I	I	I	S	S	I	S	I	I
IPM	I	I	I	S	I	I	S	I	I
LP	I	I	I	I	I	I	I	I	I

CCT:Caprylic/Capric Acid Triglyceride, IPM:Isopropyl Myristate, LP:Liquid Paraffin
Ceramide, γ -Orizanol and Cholesterol were solubilized at 80-90°C, then each solution was stood for 3 days at 5°C. Solubility was observed visually.

(S : Soluble I : Insoluble)

● Dissolving property II

ELDEW® SL-205 can dissolve low-solubility organic UV filters.



Method : UV absorbers were dissolved at 80-90°C, then solubility at 25°C was determined by HPLC measurement.

AB : C12-15 Alkyl Benzoate Crodamol AB Croda
TC : Tricaprylin Myritol 880 Cognis
CCT : Caprylic/Capric Triglyceride Myritol 318 Cognis
IPM : Isopropyl Myristate
LP : Mineral Oil

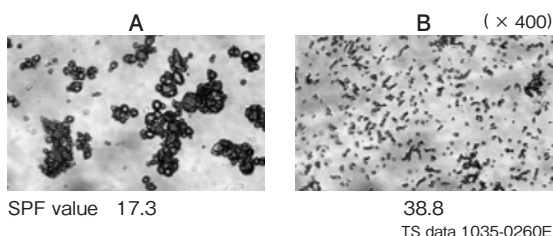
※ Each filter was mixed into emollient and vigorously stirred overnight at 25°C. Solubility was determined by HPLC.

TS data 1035-0222E

● Effects on dispersibility of TiO₂ and UV block

Pigment dispersibility of ELDEW® SL-205 is excellent.

An addition of ELDEW® SL-205 improves dispersibility of Titanium Dioxide in Mineral Oil.



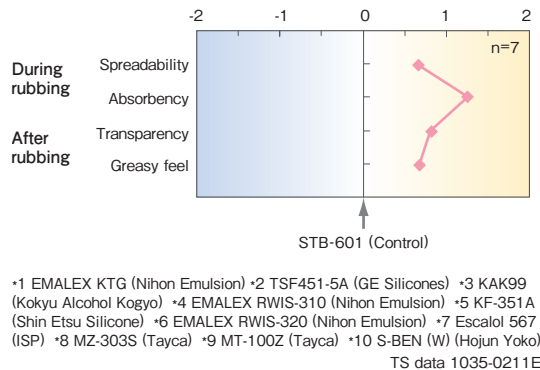
Method : Titanium Dioxide (TiO₂, TTO-5N : Ishihara Sangyo) was dispersed in an emollient oil. Dispersibility was observed light microscope. SPF value was measured by using a SPF analyzer (SPF 290S plus, SANYO SI)
Test Oils :
A : Mineral Oil* 100% B : Mineral Oil 80% + ELDEW® SL-205 20%
* Moresco White P-70 (Matsumura Oil Research)

● Improvement of sensory feeling

ELDEW® SL-205 contributes to impart light touch to a W/O type sunscreen cream.

Test Formulas :		STA-601	ST B -601
Oil Phase	A ELDEW® SL-205	5.8	—
	Caprylic/Capric Triglyceride*1	15.0	21.0
	Dimethicone*2	2.0	2.0
	Isononyl Isononanoate*3	2.0	2.0
	PEG-10 Hydrogenated Castor Oil Triisostearate*4	3.0	3.0
	PEG-11 Methyl Ether Dimethicone*5	1.5	1.5
	PEG-20 Hydrogenated Castor Oil Triisostearate*6	0.5	0.5
	Benzophenone-3*7	5.0	5.0
	B Zinc Oxide*8	5.0	5.0
	Titanium Dioxide*9	5.0	5.0
Water Phase	AMIHOPE® LL	1.0	1.0
	C Quaternium-18 Bentonite*10	1.0	1.0
	Caprylic/Capric Triglyceride*1	9.0	9.0
	ELDEW® SL-205	0.2	—
	D Sodium Chloride	0.5	0.5
	Phenoxyethanol	0.3	0.3
	Water	43.2	43.2
		100.0	100.0

Result :



Material Information

Product Name	Product Code	Chemical Name	CAS No.	Physical Form	Packaging	PCPC INCI Name	Composition (%)
ELDEW®	SL-205	Isopropyl N-Lauroyl Sarcosinate	230309-38-3	Liquid	15kg Can	Isopropyl Lauroyl Sarcosinate	100.0

Please contact the AJINOMOTO group, should you have questions about trademark registration.

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