

MOISTURIZING

For Moisturizing

NANOMOIST

INCI NAME : FRUCTAN

GENERAL DESCRIPTION FOR RAW MATERIAL

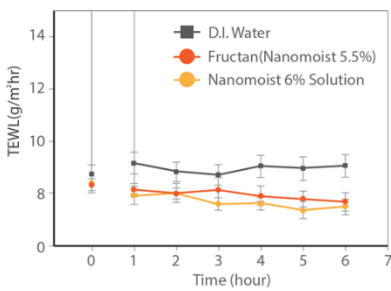
NANOMOIST is a levan type fructan produced by a microorganism, *Zymomonas mobilis*. A fructan is a polymer of fructose molecules. Fructans with a short chain length are known as fructooligosaccharides. Fructans occur in various plants especially root of Asteraceae and Poaceae, also in agave, artichokes, asparagus, leeks, garlic, and onions etc. Two main types of fructan are the inulin with β -2,1 linkages of fructose and the levan with mainly β -2,6 linkages of fructose and different branched chains of β -2,1 bonds based on its origin.

Fructan existing in nature has the linked structure of one molecular of glucose and dozens to tens of thousands fructose. Fructan in plants has low molecular weight with up to 200 linkages of fructose while fructan produced by microorganisms has high molecular weight with up to hundred thousand fructose linkages.

EFFICACY

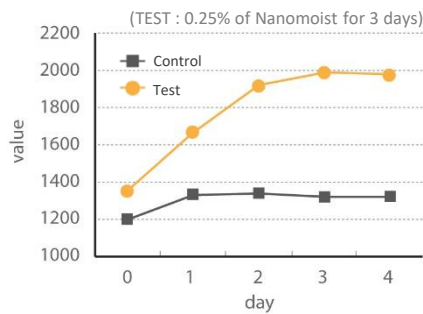
Moisturizing

TEWL

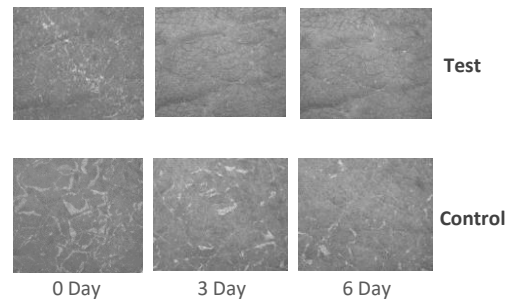


Continuous Moisturizing

Corneometer



Pictures of In Vivo tests



SPECIFICATION

Appearance	Light yellow powder
Odor	Typical
pH	5.0 ~ 8.0
Identification	IR spectrum
Total bacterial count	Not more than 1000 cfu/g
Yeast & molds	Not more than 10 cfu/g

PRODUCT INFORMATION

TRADE NAME	NANOMOIST
INCI NAME	COMPOSITION
FRUCTAN	100%
STANDARD PACKAGE	1KG

MOISTURIZING

TECHNICAL INFORMATION

Processing & Dosage

The recommended dosage of NANOMOIST is 1-10% to obtain a significant moisturizing and anti-inflammatory effect. NANOMOIST is a water soluble ingredient. In order not to disturb the structure and conformation of the polysaccharide it is recommended to incorporate NANOMOIST into formula at the last phase of the formulation at about 40°C.

Storage & Shelf life

NANOMOIST should be stored in a dark, cool and clean place. If stored in these conditions the shelf life is at least 24 months. Once the original packing is open, it is highly recommended to use at once.

Safety information

Fructans are presently used in functional foods and as soluble fibers. Fructans can also be used as low calory sweeteners. Based on the food usage of fructan, NANOMOIST is considered as safe material for cosmetic usage.

FRUCTAN (J TYPE)

INCI NAME : WATER / FRUCTAN / BUTYLENE GLYCOL / PHENOXYETHANOL

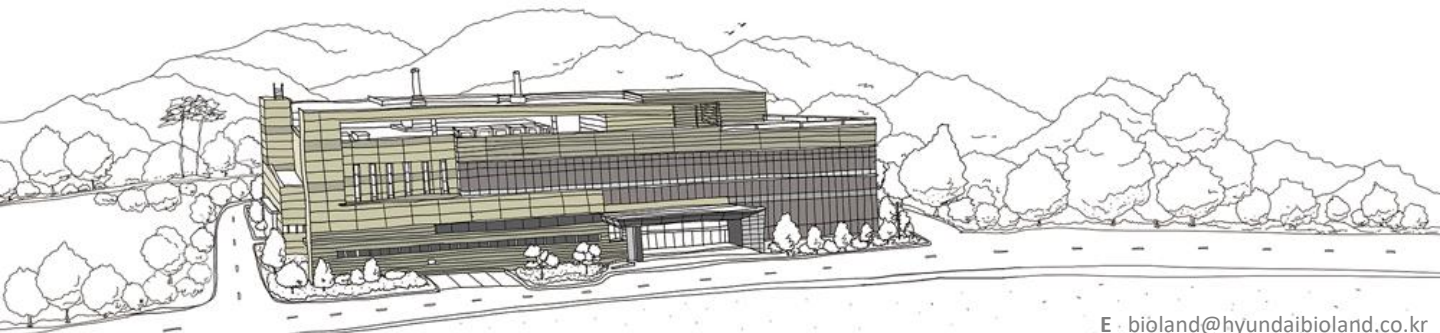


SPECIFICATION

Appearance	Slightly turbid, viscous liquid
Odor	Typical
pH	5.0 ~ 7.0
Specific Gravity (d20/20)	1.330 ~ 1.380
Total bacterial count	Not more than 100cfu/mL
Yeast & molds	Not more than 10cfu/mL

PRODUCT INFORMATION

TRADE NAME	FRUCTAN (J TYPE)	INCI Key Index
INCI NAME	COMPOSITION (INCI Key Index)	A : Greater than 50%
WATER	A	B : Greater than 25% but less than or equal to 50%
FRUCTAN	D	C : Greater than 10% but less than or equal to 25%
BUTYLENE GLYCOL	E	D : Greater than 5% but less than or equal to 10%
PHENOXYETHANOL	F	E : Greater than 1% but less than or equal to 5%
STANDARD PACKAGE	20KG	F : Greater than 0.1% but less than or equal to 1%
		G : Less than or equal to 0.1%



The content of this document was established with utmost possible care. However, we reserve the right to add the information, to correct or to delete it without prior notice.

E - bioland@hyundaibiland.co.kr
 H - www.hyundaibiland.co.kr
 T +82-43-249-6720
 F +82-43-249-6709