

Established multifunctionals from Granula

GranLux® AOX

- Antimicrobial activity
- Free radical scavenging
- Insensitive to heat
- Allergen free
- Skin repair

As a result of several years of research Granula Ltd. brings to the market a multifunctional product of natural botanical origin. This product, **GranLux® AOX**, has proven high efficacy as an antioxidant and free-radical scavenger. It even displays considerable antimicrobial activity.

GranLux® AOX is a perfect choice for anti-dandruff shampoos and products for preventing skin problems like acne and blemishes.

GranLux® AOX is a perfect choice for

- natural and organic formulas
- bath and shower products
- skincare
- haircare
- suncare
- oralcare
- babycare
- shaving products
- wet wipes
- antiaging products
- perfumes
- colour cosmetics
- decorative cosmetics
- antiperspirant

Cytotoxicity

Sample	EC20 24h ppm
Propylene glycol (G3)	13510
GranLux® AOX-G3	620
Butylene glycol (G4)	4700
GranLux® AOX-G4	600
Pentylene glycol (G5)	2710
GranLux® AOX-G5	450
Glycerine (GL)	no cytotox.
GranLux® AOX-GL	1260
AOX-powder	160
BHT	5,5

EC20 24h: concentration of test material at which 20 % of keratocytes (HaCat-culture) have perished after 24 hours.

Bacteriostatic Efficacy

Challenge test: CTFA M3 2001

Type	Microorganism
Gram-positive Cocci	<i>Staphylococcus aureus</i>
Fermentative Gram-negative Rod	<i>Klebsiella pneumoniae</i> <i>Escherichia coli</i>
Non Fermentative Gram-negative Rod	<i>Pseudomonas aeruginosa</i> <i>Pseudomonas putida</i>
Yeasts	<i>Candida albicans</i>
Dandruff	<i>Malassezia furfur</i>
Moulds	<i>Aspergillus niger</i>

Test sampled at 2,4,24,48 h and 4,7,14,28 d

All tested negative for growth