

# EXO DDS BAKUCHIOL

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## TECHNICAL DOSSIER

**Name:** EXO DDS BAKUCHIOL

**Description.:** EXO DDS BAKUCHIOL\_01

**Code.:** 20436

**Doc Ver.:** 03 (13/01/2025)



INdermal

## PRODUCT IDENTIFICATION

**Tradename:** EXO DDS BAKUCHIOL

**Description/Ref:** EXO DDS BAKUCHIOL\_01

**Code:** 20436

**Description:** BAKUCHIOL (1 %), PERSEA GRATISSIMA FRUIT EXTRACT (0.70 %) and BUTYL AVOCADETE (0.60 %) encapsulated in vegan deep release nano-vesicles (DDS - Deep Delivery System) exosome-like to add in cosmetic, cosmeceutical or dermo pharmaceutical formulations.

## INCI

AQUA, POLYGLYCERYL-10 LAURATE, GLYCERIN, PROPANEDIOL, PHOSPHATIDYLCHOLINE, METHYLPROPANEDIOL, BAKUCHIOL, COCO-BETAINE, PERSEA GRATISSIMA FRUIT EXTRACT, BUTYL AVOCADATE, MALTODEXTRIN, SODIUM COCOYL ISETHIONATE, CAPRYLYL GLYCOL, BETA-SITOSTEROL, CITRIC ACID, PHENYLPROPANOL, COCOS NUCIFERA OIL, SODIUM ISETHIONATE, TOCOPHEROL

## COMPOSITION

Ingredient	CAS	EC	% (w/w)
AQUA	7732-18-5	231-791-2	Q.S. 100
POLYGLYCERYL-10 LAURATE	34406-66-1	-	6.00 – 8.00
GLYCERIN	56-81-5	200-289-5	5.50 – 7.50
PROPANEDIOL	504-63-2	207-997-3	5.00 – 7.00
PHOSPHATIDYLCHOLINE	8002-43-5	232-307-2	3.00 – 5.00
METHYLPROPANEDIOL	2163-42-0	412-350-5	1.50 – 2.50
BAKUCHIOL	10309-37-2	-	0.50 – 1.50
COCO-BETAINE	68424-94-2	664-492-4	0.60 – 0.80
PERSEA GRATISSIMA FRUIT EXTRACT	8024-32-6	232-428-0	0.60 – 0.80
BUTYL AVOCADATE	-	-	0.50 – 0.70
MALTODEXTRIN	9050-36-6	232-940-4	0.40 – 0.60
SODIUM COCOYL ISETHIONATE	61789-32-0	263-052-5	0.30 – 0.50
CAPRYLYL GLYCOL	1117-86-8	214-254-7	0.30 – 0.50
BETA-SITOSTEROL	83-46-5	201-480-6	0.05 – 0.15
CITRIC ACID	77-92-9	201-069-1	0.05 – 0.15
PHENYLPROPANOL	122-97-4	204-587-6	0.04 – 0.10
COCOS NUCIFERA OIL	8001-31-8	232-282-8	0.03 – 0.07
SODIUM ISETHIONATE	1562-00-1	216-343-6	0.01 – 0.03
TOCOPHEROL	10191-41-0	233-466-0	0.001 – 0.003

## SPECIFICATIONS

<b>Appearance:</b>	LIQUID
<b>Color:</b>	LIGHT BROWN
<b>Odor:</b>	CHARACTERISTIC
<b>Size (nm):</b>	100 – 250
<b>Polidispersity Index:</b>	< 0.5
<b>pH:</b>	4.5 – 5.5

## COUNTRY OF MANUFACTURE

Spain

## EXPIRATION AND STORAGE

Store in a clean, dark and a cool place (8 - 25°C). We recommend temperatures between 2 - 8 °C to increase self-life once opened. Do not freeze.

Store for 12 months if the product is kept in the original sealed container. Once opened, it is recommended to use all the product at once or repackage the excess using nitrogen. Shake before using.

## RECOMMENDED DOSE

1 % - 10 % According to the frequency of application of the final product and the intensity of the effect that you want to achieve.

Examples: Daily cream: 3% – 5 %    Serum: 4% – 8%    Mask: 3% - 7%    Ampoules: 5% - 10%

Professional use: 7% - 10%

## DISPERSABILITY

Dispersible product in aqueous media. (See incompatibilities)

## HOW TO USE

Shake before using. If the product is stored under 12°C, let the product get room temperature before shaking. At low temperatures reversible changes in viscosity can occur.

Add to bulk during the final phase of the production process, ensuring that the temperature does not exceed 40°C to avoid degradation of the encapsulated molecules. If you need to add it to higher temperatures, please consult our technical service.

Maximum homogenization: 20.000 rpm

Formulation pH: 3 – 11

## INCOMPATIBILITIES

Ethanol concentrations higher than 15% may damage liposomes (contact our technical service for advice)

Too high concentration of hard detergents may break liposomes (contact our technical service for advice)

In emulsions W/O or O/W add the product in the aqueous phase (contact our technical service for advice)

## CHARACTERIZATION

Product characterization is based on the particle analysis using nanotechnology characterization techniques such as: Dynamic Light Scattering, Nanoparticle Track Analysis or Phase analysis Light Scattering. The main properties analyzed are: Average Size and Size Distribution.

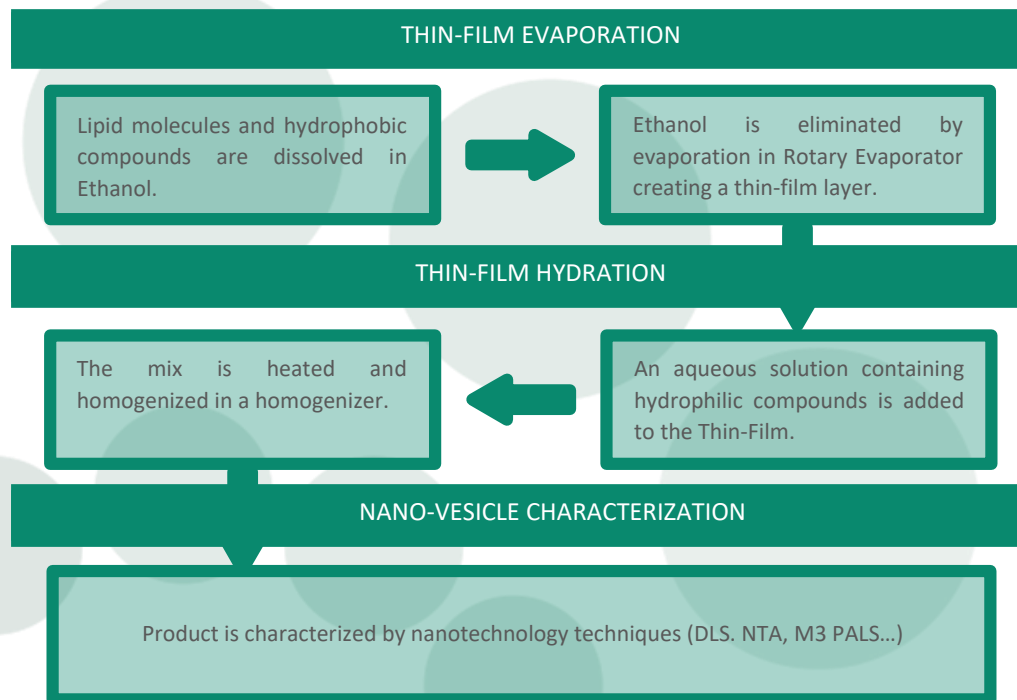
### Average size

Average size of nano-vesicles can be determined using Dynamic Light Scattering (DLS) and Nanoparticle Track Analysis (NTA) techniques. Both are based on the Brownian motion of the particle and the light scattering from it. They apply Stokes-Einstein equation to relate diffusion to size (Hydrodynamic diameter). Additionally, DLS offers an ensemble measurement, whereas NTA delivers a particle-by-particle measurement.

### Size distribution

Size distribution was determined using the DLS technique. The distribution is represented by the polydispersity index PDI, whose values are in the range between 0 and 1. Values near 0 represent a monodispersed sample and values near 1 represent polydisperse sample. It can be considered that values below 0.5 have good distribution values.

## PRODUCTION PROCESS FLOW CHART



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