

A080.02.ENG

## **TECHNICAL DATA SHEET**

012439-TDS-ENG-2021

| BIMATOPROST                  |                         |                              |                      |  |  |
|------------------------------|-------------------------|------------------------------|----------------------|--|--|
| DESCRIPTION DCI: BIMATOPROST |                         | DESCRIPTION DOE: BIMATOPROST |                      |  |  |
| CAS N°: 155206-00-1          | EC N°: 642-890-9        |                              | AEMPS CODE:          |  |  |
| MOL. WEIGHT: 415.57          | MOL. FORMULA: C25H37NO4 |                              | ARTICLE CODE: 012439 |  |  |

| ATTRIBUTES | SHOULD BE |
|------------|-----------|
|            |           |

Appearance White to slightly off-white crystalline powder

Solubility Very soluble in acetone, ethanol, methanol, dimethyl sulfoxide, soluble in

acetonitrile, sparingly soluble in ethyl acetate, slightly soluble in water

Identification IRCompliesIdentification HPLCComplies

Assay 98.0 - 102.0 %

Purity

N-hydroxysuccinimide =< 0.15 % 5,6-trans Bimatoprost =< 0.15 % 15(R)-Bimatoprost =< 0.15 % Free Acid Bimatoprost =< 0.15 % Bimatoprost Cyclohexylamide =< 0.15 % 15-keto Bimatoprost =< 0.15 % Triphenylphosphine Oxide =< 0.15 % Other single impurities =< 0.10 % Total impurities =< 1.0 %

Optical rotation  $+33.0^{\circ} / +37.0^{\circ}$ 

Water = < 1.0 %Residue on ignition = < 0.10 %

Residual solvents

Methylene Chloride =< 600 ppm Ethyl acetate =< 5000 ppm n-Heptane =< 2500 ppm Acetone =< 5000 ppm Toluene =< 890 ppm Methyl tert-butyl ether =< 5000 ppm Methanol =< 3000 ppm Tetrahydrofuran =< 720 ppm Benzene =< 2 ppm

Elemental impurities

Arsenic =  $< 0.15 \mu g/g$ Boron =  $< 50 \mu g/g$ Cadmium =  $< 2.5 \mu g/g$ Lead =  $< 0.5 \mu g/g$ Mercury =  $< 1.5 \mu g/g$ 

Microbiological control

TAMC = < 100 CFU/g

All methods are validated by the official pharmacopoeias and/or by the authorized manufacturer



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TYMC = < 10 CFU/g

## COMPLIES WITH

Manufacturer Specifications

# STORAGE

Store in a dark, dry place at a temperature -20  $\pm$  5 °C.

## **REMARKS**

Bimatoprost is subjected to the requirements of the ICH Q3D "Elemental Impurities" guideline and the requirements of guides EMA/CHMP/ICH/82260/2006.

Absence of N-nitrosamines impurities has been ensured after a risk evaluation according to ICH Q9, ICH M7 and in accordance with guidelines EMA/428592/2019 Rev 2 and EMA/189634/2019.

Certificates of residual solvents, allergens, non-GMO and BSE-TSE, among others, are available upon request.

All methods of analysis are validated by official pharmacopoeias or are validated by internal methods of the manufacturer, which can be obtained at specific request. The above information does not exempt from the obligation to identify the product before use.