

TMDA/DMC/MRE/F/016  
Rev #:02



THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH



TANZANIA MEDICINES AND MEDICAL DEVICES AUTHORITY

**PUBLIC ASSESSMENT REPORT FOR PULSATYL SDK (METOPROLOL SUCCINATE  
23.75 MG EQUIVALENT TO METOPROLOL TARTRATE 25 MG) CONTROLLED RELEASE  
FILM COATED TABLETS**

Version number 1

3<sup>rd</sup> January, 2023

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## 1. Introduction

PULSATYL SDK is a generic medicine of Lopressor. PULSATYL SDK is an antihypertensive medicine belonging to C07AB02- Beta-receptor blocker, selective group. Metoprolol is a beta-1 selective beta blocker. It has a relatively greater blocking effect on beta receptors (i.e. those mediating adrenergic stimulation of heart rate and contractility and release of the fatty acids from fat stores) than on beta receptors which are chiefly involved in broncho and vasodilation. Metoprolol only exhibits insignificant membrane stabilising effect and has no agonist effect. Metoprolol reduces or blocks the stimulating effect of catecholamines (particularly released in case of physical or mental stress) on the heart. Metoprolol reduces tachycardia, decreases the cardiac output and the contractility, and lowers the blood pressure. If required, metoprolol may be administered concomitantly with a beta-2 agonist to patients with symptoms of obstructive pulmonary disease. PULSATYL SDK is approved in Tanzania for use in adults and elderly.

### 1.1 Product details

Registration number	TAN 21 HM 0324
Brand name	PULSATYL SDK
Generic name, strength and form	Metoprolol succinate
ATC classification	C07AB02- Beta-receptor blocker, selective
Distribution category	POM
Country of origin	Turkey
Associated product	State any other product of formulation, strength or site that is linked or associated with the product if applicable
Marketing Authorization Holder	İlko İlaç Sanayi ve Tic. A.Ş. <b>Address:</b> Veysel Karani Mah. Çolakoğlu Sok. No. 10, 34885, Sancaktepe, İstanbul-Turkey <b>E-Mail:</b> <a href="mailto:info@ilko.com.tr">info@ilko.com.tr</a>
Local Technical Representative	Generics & Specialities Ltd 2nd Floor, Zahra Arcade, Mindu Street, <b>DAR ES SALAAM.</b> <b>E-Mail:</b> <a href="mailto:khsrinilai@genericsgroup.net">khsrinilai@genericsgroup.net</a>

### 1.2 Assessment procedure

The application for registration of PULSATYL SDK was submitted on 16<sup>th</sup> December, 2019. The product underwent full assessment. Assessment was completed in three rounds of evaluation. PULSATYL SDK was registered on 20<sup>th</sup> August, 2021.

### 1.3 Information for users

Visual description of the finished product	Homogeneous, white colored, round, biconvex, scored on one side film coated tablet
Primary packing material	PVC/PVDC-Alu Foil
Secondary packing materials	Carton Box
Shelf-life and storage condition	24 months Store at room temperature below 30°C
Route of administration	Oral
Therapeutic indications	Metoprolol tartrate is indicated in the treatment of hypertension, angina pectoris, stable symptomatic chronic heart failure with impaired systolic left ventricular function, prevention of cardiac death and re-infarction after the acute phase of myocardial infarction, particularly tachycardiac arrhythmias including supraventricular tachycardia, reduction of ventricular rate in extrasystoles and atrial fibrillation, prophylaxis of functional heart disorders with palpitations and migraine

## 2. Labelling and product information

### Summary of product characteristics

The SmPC included all the relevant information to ensure correct and safe use of the medicine by healthcare providers. The complete SmPC can be accessed [here](#).

### Package insert/leaflet

The package insert is confirmed to be derived from the SmPC and contains sufficient data for the end user. Since the product is POM that is intended for long term use the package insert contains full prescribing information as per SmPC.

### Container labels

The product label information is presented in English. Details in the secondary pack label include:

Brand name: PULSATYL SDK

Composition: Metoprolol Succinate 23.75 mg equivalent to Metoprolol Tartrate 25 mg, Microcrystalline Cellulose- PH 102, Microcrystalline Cellulose- PH 200, Hydrogenated vegetable oil, Colloidal silicon dioxide, Sodium stearyl fumarate

Pack size: 1 x 20's

Manufacturing details: <batch number, manufacturing date, expiry date>

Storage conditions: Store at room temperature below 30°C

Manufacturer address: İlko İlaç Sanayi ve Ticaret A.Ş., Organize Sanayi Bölgesi Kuddusi, Cad.23. Sok. No:1 Selçuklu/Konya, Turkey

Unique identifier: NA

Special warnings/precautions or instructions for use: <include warnings or IFU if applicable>

The details of the primary pack include:

Brand name and strength: PULSATYL SDK (Metoprolol Succinate 23.75 mg equivalent to Metoprolol Tartrate 25 mg)

Manufacturing details: <batch number, manufacturing date, expiry date>

Name of manufacturer: İlko İlaç Sanayi ve Ticaret A.Ş

The content of the primary and secondary labels was aligned to the requirements of the Part V of the Compendium: Guidelines on Format and Content of Product Labels for Medicinal products. The label contains sufficient information for proper identification of the medicine and post marketing follow up of the product.

Describe any approved deviation to the requirements and the justification for the deviation.

Mock labels are appended as annex I

### 3. Scientific discussion

#### Quality of Active Pharmaceutical Ingredient(s)

Information on quality of the API was submitted in form of Full details

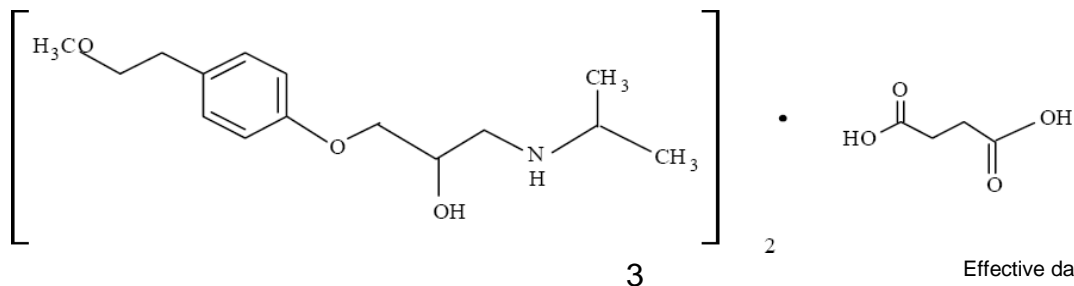
#### General properties

Metoprolol Tartrate API is compendia in USP

Molecular formula:  $C_{15}H_{25}NO_3)_2 \cdot C_4H_6O_4$

Chemical name: 2-Propanol, 1-[ 4-(2 methoxyethyl)phenoxy]-3-[(1-methylethyl) amino]-, butanedioate(2:1) salt

Structure:



Effective date: 03/10/2022

Metoprolol Tartrate is a white, crystalline powder that is freely soluble in water, soluble in methanol, sparingly soluble in alcohol, slightly soluble in isopropyl alcohol. In line with the Ph.Eur. monograph, there is no test for polymorphic form. This is justified, as no indications were found that polymorphic form affects the solubility and stability of the drug product, the synthetic route of the active substance is similar to already approved products and IR is able to detect differences in crystalline form

### Manufacture

The API manufacturing site, Ra Chem Pharma Limited (FDF Division) Plot No-A-19/C, Road No-18, IDA Nacharam, Hyderabad-500 076, Telangana, India was noted to comply with WHO GMP requirements as evidenced by the GMP certificate issued by Drug Control Administration, Government of Telangana. Metoprolol Tartrate API is manufactured by chemical synthesis using conventional techniques. Sufficient controls of quality of materials and in-process checks were employed throughout the manufacturing process.

### Specifications

The API specifications were set as per USP, BP, in-house standards and ICHQ3A. The parameters monitored during quality control are: Description, identification, water content, assay, dissolution, particle size distribution, residual solvents, related substances, microbial limit test. Compliance to these specifications were established via batch analysis data and stability studies.

### Stability and container closure system

The re-test period of Metoprolol Tartrate API is 24 months when packed in double polyethylene bag in a HDPE drum and stored at 25°C.

## **Quality of the Finished Pharmaceutical Product**

### Formulation

PULSATYL SDK (Metoprolol Succinate 23.75 mg equivalent to Metoprolol Tartrate 25 mg) is a Homogeneous, white colored, round, biconvex, scored on one side film coated tablet packed in PVC/PVDC-Alu Foil. PULSATYL SDK contains Metoprolol Tartrate and other ingredients listed here after Microcrystalline Cellulose- PH 102, Microcrystalline Cellulose- PH 200, Hydrogenated vegetable oil, Colloidal silicon dioxide, Sodium stearyl fumarate. The quantities of all ingredients are confirmed to be in line with the recommendations of Handbook of Pharmaceutical Excipients, Edition 8<sup>th</sup> in terms of function and quantities.

## Manufacture

The finished product was manufactured at İlko İlaç Sanayi ve Ticaret A.Ş., Organize Sanayi, Bölgesi Kuddusi Cad.23. Sok. No:1 Selçuklu/Konya, Turkey. The compliance of the site to TMDA GMP standards was confirmed through site inspection on 29<sup>th</sup> -30<sup>th</sup> May, 2017.

## Specifications

The FPP is compendia in BP/USP. The manufacturer controls the quality of the finished product as per BP, In House standard and ICHQ3B requirements. The parameters monitored during quality control are: <Description, identification, content uniformity, water content, average mass, dissolution, assay, related substance, microbial limit test. Compliance to the standard was established using batch analysis data and stability data.

## Stability and container closure system

Stability studies were conducted on three batches of the finished product stored at  $30^{\circ}\text{C} \pm 2^{\circ}\text{C} / 65\% \pm 5\% \text{RH}$  for 24 months and  $40 \pm 2^{\circ}\text{C} / 75\% \pm 5\% \text{RH}$  Long term storage condition:  $30^{\circ}\text{C} \pm 2^{\circ}\text{C} / 65\% \pm 5\% \text{RH}$  for 6 months. Based on the stability data presented, the approved shelf-life is 24 months when stored in PVC/PVDC – Alu Blister with a storage condition of store below  $30^{\circ}\text{C}$ .

## **Safety and efficacy information**

Safety and efficacy of PULSATYL SDK was established through biowaiver application. comparative dissolution report was submitted.

The biowaiver was approved based on additional strength.

PULSATYL SDK (Metoprolol Tartrate 25 mg) controlled release film coated tablets fulfilled the criteria for waiving an in-vivo bioequivalence study as per relevant TMDA guidance. Dissolution profiles of PULSATYL SDK (Metoprolol Tartrate 25 mg) controlled release film coated tablets was compared to PULSATYL SDK (Metoprolol Tartrate 25 mg) controlled release film coated tablets. less than 85% of the labelled amount of Metoprolol Tartrate had dissolved in all three media. Therefore, necessitating calculation of similarity factor  $f_2$ , which was noted to be above 50.

## **4. Benefit-Risk Assessment and Conclusion**

On basis of the data submitted, the current state of knowledge and compliance to Good Manufacturing Practice, the benefit of the product outweighs the risks associated with its use when used in accordance to the summary of product characteristics. PULSATYL SDK is recommended for registration.

## 5. Post-approval updates

### Variation applications

Reference number	Date submitted	Change requested	Recommendation	Granting date

### Feedback from pharmacovigilance, post marketing surveillance and enforcement activities

Type of feedback	Impact	Response

### Re-registration applications

Application for renewal of registration was submitted on <DDMMYYYY>. The application was finalized in <number> rounds of evaluation. The product was confirmed to still be compliant to the standards of quality, safety and efficacy, hence registration was renewed on <DDMMYYYY>.

## PART 5: CHANGE HISTORY

Version number	Date	Description of update	Section(s) Modified	Approval date

Annex I: Mock up label

