THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH

TANZANIA MEDICINES AND MEDICAL DEVICES AUTHORITY

PUBLIC ASSESSMENT REPORT FOR PUSTALROCIN (MUPIROCIN 2%W/W) OINTMENT

Version number 1.0
21 August, 2023

TMDA Headquarters, Plot No. 56/1, Block E, Kisasa B Centre, Hombolo Road, P. O. Box 1253, Dodoma – Tanzania, Telephone: +255 (26) 2961989/2061990/+255 (22) 2450512/2450751/2452108, Email: info@tmda.og.tz, Website: **www.tmda.go.tz**

Toll free: 0800110084

1. Introduction

Pustalrocin (Mupirocin 2%w/w) Ointment is a generic medicine of Bactroban 2% Ointment of Beecham Group Plc. Pustalrocin ointment is a topical antibacterial agent, active against those organisms responsible for the majority of skin infections, e.g., Staphylococcus aureus, including methicillin- resistent strains, other staphylococci and streptococci. It is also active against Gram-negative organisms such as Escherichia coli and Haemophilus influenzae. Mupirocin is a novel antibiotic produced through fermentation by Pseudomonas fluorescens. Mupirocin inhibits isoleucyl transfer-RNA synthetase, thereby arresting bacterial protein synthesis. Mupirocin has bacteriostatic properties at minimum inhibitory concentrations and bactericidal properties at the higher concentrations reached when applied locally. Pustalrocin ointment is approved in Tanzania for use in adults, adolescents, children and infants aged four weeks and older.

Product details

Registration number	TAN 23 HM 0245
Brand name	Pustalrocin
Generic name, strength, and form	Each gram contains: Mupirocin 20 mg
ATC classification	Antibiotics and chemotherapeutics for topical use, ATC code: D06AX09
Distribution category	POM
Country of origin	India
Associated product	N/A
Marketing Authorization Holder	Kwality Pharmaceuticals Pvt Limited. 6th Milestone, Vill.Nag Kalan,Majitha Road,Amritsar, Punjab India
Local Technical Representative	Abner Pharmaceuticals Limited Abner House, Mikocheni, Off Mwai Kibaki Road, Sembeti Street, Dar-es-Salaam

1.1 Assessment procedure

The application for registration of Pustalrocin was submitted on 01/9/2020. The product underwent full assessment. Assessment was completed in 4 (four) rounds of evaluation and the product was registered on 01/06/2023.

1.2 Information for users

Visual description of the finished product	White to off-white colored ointment
Primary packing material	Lami tube sealed with white coloured plastic cap, pack size 10gm
Secondary packing materials	Printed carton box
Shelf-life and storage condition	36 months, Do not above 30°C. Do not freeze In-use shelf life: 30 days

Route of administration	Topical
Therapeutic indications	Mupirocin is indicated in adults and children. Mupirocin is a topical antibacterial agent, active against those organisms responsible for the majority of skin infections, e.g., Staphylococcus aureus, including methicillin-resistant strains, other staphylococci, streptococci. It is also active against Gram-negative organisms such as Escherichia coli and Haemophilus influenzae. Mupirocin Ointment is used for skin infections, e.g., impetigo, folliculitis, furunculosis.

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, 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: Pustalrocin

Composition: Each gram contains: Mupirocin 20 mg

Pack size: 10 gm

Manufacturing details: batch number, manufacturing date, and expiry date

Storage conditions: Do not above 30°C. Do not freeze

Manufacturer address: physical address of release site

Unique identifier: Not applicable

Special warnings/precautions or instructions for use: Not applicable

The details of the primary pack include:

Brand name and strength: Pustalrocin

Manufacturing details: batch number, manufacturing date and expiry date

Name of manufacturer: Kwality Pharmaceuticals Pvt Limited

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.

Mock labels are appended as annex I.

3. Scientific discussion

Quality of Active Pharmaceutical Ingredients

Information on the quality of the API was submitted in form of DMF.

General Information

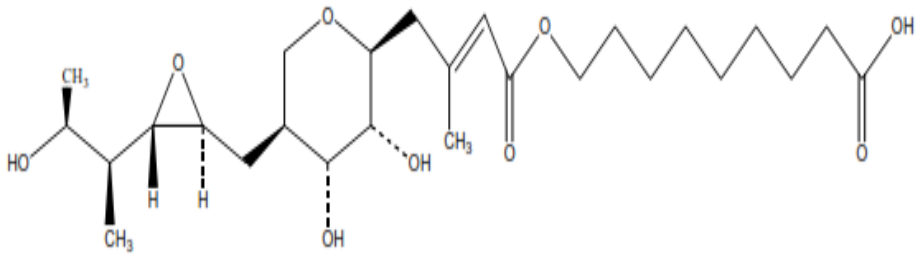
Mupirocin API is compendia in USP, Ph.Eur., and BP.

Molecular formula: $C_{26}H_{44}O_9$

Chemical name:

9-[[(2E)-4- [(2S, 3R, 4R, 5S)-5- [[(2S, 3S, 4S, 5S)-2,3-epoxi-5- hydroxy-4-methylhexyl]-3,4-dihydroxy-3,4,5,6-tetrahydro-2H- pyran-2-yl]-3-methylbut-2-enoyl]-oxy]-nonanoic acid

Structure:



General properties

The active substance is off white to off white, crystalline solid, freely soluble in acetone, in chloroform, in dehydrated alcohol and in methanol; slightly soluble in ether; very slightly soluble in water. The substance shows polymorphism. The manufacturer consistently produces the same polymorphic form.

Manufacture

Mupirocin API manufacturer is FISHFA BIOGENICS, Kuwadva Wankaner Road, Surya Rampara – 360003, Dist. Rajkot Gujarat, India. The manufacturing complies with GMP requirements as evidenced by the GMP certificate issued by the Gujarat Food and Drug Control Administration (FDCA). Mupirocin API is manufactured by fermentation by Psydomonas flourescens. 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 standards and ICHQ3A. The parameters monitored during quality control are: Description, solubility, identity by IR, pH, specific rotation, water, residual solvents, assay, and related impurities. Compliance to these specifications were established via batch analysis data and stability studies.

Stability and container closure system

The re-test period of Mupirocin API is 24 months when packed in original container with storage condition 'Store between 2°C to 8°C'.

Sulfamethoxazole

General Information

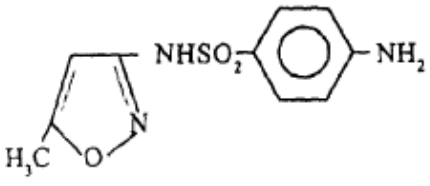
Sulfamethoxazole API is compendia in USP, Ph.Eur., and BP.

Molecular formula: $C_{10}H_{11}N_3O_3S$

Chemical name:

N'-(5-Methylisoxazole-3-yl) Sulfanilamide

Structure:



General properties

Sulfamethoxazole is a white or almost white, odourless, crystalline powder and is practically insoluble in water, freely soluble in acetone, sparingly soluble in alcohol, slightly soluble in ether. It dissolves in dilute solutions of sodium hydroxide. The manufacturer consistently produces the same polymorphic form.

Sulfamethoxazole is a class IV substance in the BCS classification system. It has a low aqueous solubility. Appropriate limits have been included in the active substance specifications to monitor the particle size and size distribution.

Manufacture

Sulfamethoxazole API manufacturer is Andhra Organics Limited, Plot No.110A, IDA, Pydibhimavaram, Srikakulam – 532 409, India. The manufacturing complies with GMP requirements as evidenced by the GMP certificate issued by the Drugs Control Administration, Government of Andhra pradesh. Sulfamethoxazole 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 BP standards and ICHQ3A. The parameters monitored during quality control are: Description, solubility, identity, appearance solution, particle size, assay, related impurities, loss on drying, sulphated ash, and heavy metal. Compliance to these specifications were established via batch analysis data and stability studies.

Stability and container closure system

The shelf-life period of Sulfamethoxazole API is 72 months when packed in original container with storage condition ‘The product should be kept in airtight containers below 30°C’.

Quality of the Finished Pharmaceutical Product

Formulation

Pustalrocin is an off-white-coloured ointment.

Pustalrocin contains the Mupirocin and other ingredients listed here after: mineral oil, white petroleum, lanolin. The quantities of all ingredients are confirmed to be in line with the recommendations of Handbook of Pharmaceutical Excipients, 8th Edition in terms of function and quantities.

Manufacture

The finished product manufacturer is Kwality Pharmaceuticals Pvt Limited, 6th Milestore, Vill.Nag Kalan,Majitha Road,Amritsar,Punjab, India. The compliance of the sites to TMDA GMP standards was confirmed through site inspection on 09-10/12/2021.

Specifications

The FPP is compendia in USP. The manufacturer controls the quality of the finished product as per USP standards and ICH requirements. The parameters monitored during quality control are: Description, identification, average fill weight, minimum fill, assay of API, related impurities, and microbial purity. Compliance to the standard was established using batch analysis data and stability data.

Stability and container closure system

Stability studies were conducted on 3(three) batches of the finished product stored at 30 ± 2°C & RH: 75 ± 5% RH for 36 months and 40± 2°C & RH: 75% ± 5% RH for 6 months. Based on the stability data presented, the approved shelf-life is 36 months when stored in Lami tube sealed with white coloured plastic cap with storage condition 'Do not above 30°C. Do not freeze'

After opening of tube, the Pustalrocin ointment is demonstrated through in-use stability study conducted by using two (2) batches physically and chemically stable for 30 days when store at temperature not above 30°C.

Safety and efficacy information

Bioequivalence studies are not necessary to support this application. For products for local application intended to act without systemic absorption, the approach to determine equivalence on systemic measurements is not applicable.

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. Pustalrocin 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

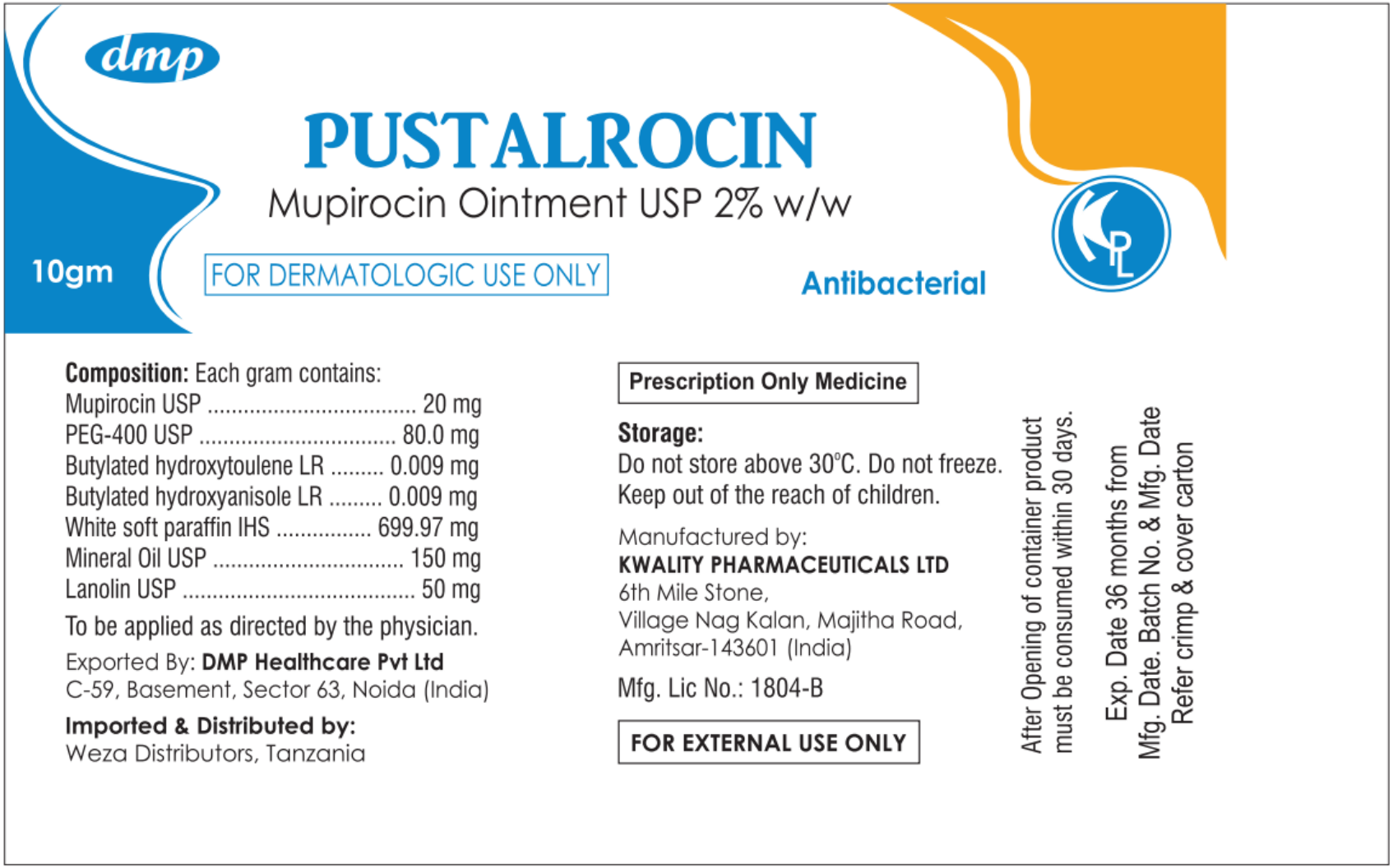
Application for renewal of registration was submitted on <DDMMYYYY>. The application was finalized in <number> rounds of evaluation. The product was confirmed to still be compliant to the standards of quality, safety and efficacy, hence registration was renewed on <DDMMYYYY>.

PART 5: CHANGE HISTORY

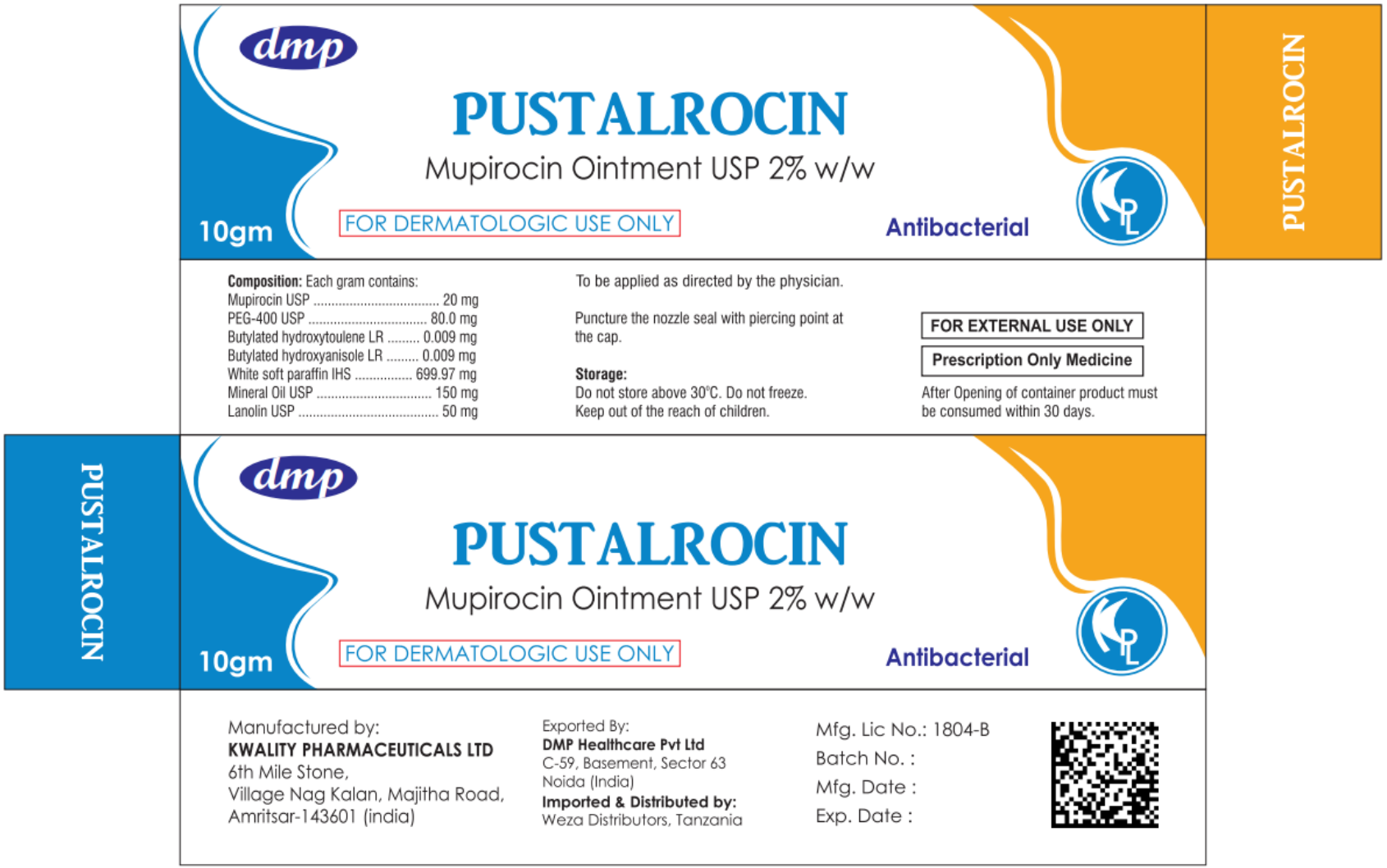
Version number	Date	Description of update	Section(s) Modified	Approval date

Annex I: Mock up labels;

Primary pack label;



Secondary pack label:



Effective date: 03/10/2022