Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Amorolfine 5%w/v medicated nail lacquer

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains 55.7 mg amorolfine hydrochloride equivalent to 50 mg amorolfine (5% w/v amorolfine).

Each bottle with 2.5 ml contains 139.3 mg amorolfine hydrochloride equivalent to 125 mg amorolfine.
Each bottle with 3 ml contains 167.1 mg amorolfine hydrochloride equivalent to 150 mg amorolfine.
Each bottle with 5 ml contains 278.5 mg amorolfine hydrochloride equivalent to 250 mg amorolfine.

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Medicated nail lacquer

Clear solution.

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

Treatment of onychomycosis caused by dermatophytes, yeasts or moulds, without nail matrix involvement in adults.

4.2 Posology and method of administration

Posology
The nail lacquer should be applied to the affected finger- or toenails once weekly.

Method of administration
For topical use. To be applied to the affected nails.

1. Prior to each application, the diseased nail areas (particularly nail surfaces) must be filed down as much as possible with a nail file supplied with the pack. Then, the nail surface is cleaned and degreased with a swab - soaked with nail lacquer remover - supplied with the pack. Prior to each subsequent application of Amorolfine medicated nail lacquer, this process of filing down and cleaning must be repeated, so as to remove existing lacquer residues.***Warning! Nail files used for treatment must no longer be used for the care of healthy nails.***
2. The nail lacquer is then applied with a spatula over the entire surface of the diseased nail and left to dry.For each of the nails to be treated, the spatula should be immersed into the nail lacquer.***Warning! The spatula must not be wiped off on the neck of the bottle.***After use, the spatula must be cleaned with the swab soaked in nail lacquer remover. It is important to clean the hands after applying Amorolfine medicated nail lacquer. If Amorolfine medicated nail lacquer is applied to the fingernails, users should wait until these are dry before washing their hands.

Duration of treatment
Treatment should be continued without interruption until the nail is regenerated and the infected areas are definitively cured. In general, the duration of treatment is 6 months for fingernails and 9 to 12 months for toenails (it depends essentially on the intensity, localisation and extent of the infection).
After a 3-month use without improvement, a doctor should be consulted.

Paediatric Population
Due to a lack of experience, children and adolescents should not be treated with Amorolfine medicated nail lacquer.

Elderly
There are no specific dosage recommendations for use in elderly patients.

4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

4.4 Special warnings and precautions for use

During the application of Amorolfine no cosmetic nail lacquer or artificial nails shall be used.
However, with repeated use of Amorolfine medicated nail lacquer, any nail varnish applied should be removed before applying a new coat of Amorolfine medicated nail lacquer.
Impermeable gloves should be worn when handling organic solvents, as the layer of Amorolfine lacquer on the fingernails will otherwise be removed. Due to lack of experience, children should not be treated with Amorolfine medicated nail lacquer.
Avoid contact of the lacquer with eyes, ears and mucous membranes.

Patient care should be determined by a physician in patients suffering from peripheral vascular diseases, diabetes, immune system disorders, as well as in patients with nail dystrophy or seriously damaged nails (over two thirds of the nail plate is affected). In these cases, a systemic therapy should be envisaged.
Patients with a history of injury, skin conditions such as psoriasis or any other chronic skin condition, oedema, breathing disorders (Yellow nail syndrome), painful, distorted/deformed nails or any other symptoms should seek medical advice prior to commencing treatment.

4.5 Interaction with other medicinal products and other forms of interactions

No interaction studies have been performed.

4.6 Fertility, pregnancy and lactation

Pregnancy
Reproductive toxicology studies showed no evidence of teratogenicity in laboratory animals but embryotoxicity was observed at high oral doses. Experience with amorolfine during pregnancy and breastfeeding are limited. The systemic absorption of amorolfine during and after topical administration is very low and therefore the risk to the human fetus appears to be negligible. However, because there is no relevant experience, amorolfine should be avoided during pregnancy.

Breast-feeding
It is unknown whether amorolfine is excreted in human milk. Because there is no relevant experience, amorolfine should be avoided during breast-feeding.

Fertility
No data is available.

4.7 Effects on ability to drive and use machines

Not relevant.

4.8 Undesirable effects

Tabulated list of adverse reactions:

System Organ Class	Incidence	Adverse reactions
Immune system disorders	Uncommon (≥1/1,000 to <1/100)	Hypersensitivity (allergic reaction)
Skin and subcutaneous tissue disorders	Rare (≥1/10,000 to <1/1,000)	Nail lesions, onychoclasis (broken nails), nail discolouration, onychorrhexis (brittle nails) and fragile nails
	Very rare (<1/10,000)	Skin burning sensation

	Not known (cannot be estimated from the available data)	Erythema, pruritus, contact dermatitis, urticaria, blisters

Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie; E-mail: medsafety@hpra.ie.

4.9 Overdose

No systemic signs of overdose are expected following topical application of amorolfine 5% nail lacquer.
In case of accidental oral ingestion, appropriate symptomatic measures should be taken if needed.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Antifungals for dermatological use, other antifungals for topical use, ATC code: D 01AE 16

Mechanism of action
Amorolfine is a topical antifungal agent. It belongs to the class of morpholine derivatives. Its fungistatic and fungicidal effect is due to a modification in the fungal cell membrane, with sterol biosynthesis being the main point of attack. The ergosterol level is reduced while, at the same time, unusual sterically nonplanar sterols accumulate.

It is effective against:
Dermatophytes: trichophytes, microspores, epidermophytes;
Yeasts: *Candida, Malassezia* or *Pityrosporum spp., Cryptococcus*;
Moulds: *Alternaria, Hendersonula, Scopulariopsis, Scytalidium, Aspergillus*;
Dematiaceae: *Cladosporium, Fonsecaea, Wangiella*;
Dimorphic fungi: *Coccidiodes, Histoplasma, Sporothrix*.
With the exception of *Actinomyces*, bacteria are not susceptible to amorolfine.

5.2 Pharmacokinetic properties

Absorption
Amorolfine penetrates the nail plate via the nail lacquer and thus eradicates the difficult-to-access fungi within the nail bed.

Distribution
Systemic absorption of the active substance is very low with this route of administration.

Elimination
Even in long-term treatment, there are no signs of accumulation in the human body.

5.3 Preclinical safety data

High systemic exposure in pregnant rabbits has precipitated a slight increase in embryonic resorption (embryotoxicity). However, no teratogenic effect was seen at these doses. Experience with amorolfine during pregnancy and breastfeeding in humans are limited. Amorolfine hydrochloride has been tested up to toxic doses both in vitro and in vivo. No mutagenic potential was found in any of these tests. There have been no long-term carcinogenic studies.

Animal experiments with topical use of amorolfine hydrochloride showed mild to moderate skin irritation, especially when used under occlusive conditions. However, as occlusive dressings are not recommended for the treatment of topical fungal infections in humans, the relevance of increased local irritation under these extreme conditions is deemed to be minor. There was no evidence of any phototoxic, allergic or photoallergic potential for amorolfine hydrochloride in any of the respective animal experiments performed.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Ethanol anhydrous
Ammonio Methacrylate Copolymer (type A)
Ethyl acetate
Butyl acetate
Triacetin

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

3 years

2.5 ml and 3 ml bottle
After first opening: 6 months

5 ml bottle
After first opening: 9 months

6.4 Special precautions for storage

Keep the container tightly closed.

Keep the medicated nail lacquer away from fire or flames (the alcohol base is inflammable).

6.5 Nature and contents of container

Amber glass type I or type III bottle stopped with HDPE cap with a Teflon liner.

Pack size: 2.5 ml, 3 ml and 5 ml

All packs contain 30 alcohol cleansing swabs (soaked with isopropyl alcohol as nail lacquer remover and sealed in composite foil, 10 spatulas and 30 nail files.

Not all pack sizes may be marketed.

6.6 Special precautions for disposal and other handling

Discard the medicinal product if deteriorated, e.g. hardened.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

Rowex Ltd
Newtown
Bantry
Co. Cork
Ireland

8 MARKETING AUTHORISATION NUMBER

PA0711/309/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 22nd March 2019

10 DATE OF REVISION OF THE TEXT

May 2020