

**IRISH MEDICINES BOARD ACTS 1995 AND 2006**

**MEDICINAL PRODUCTS(CONTROL OF PLACING ON THE MARKET)REGULATIONS,2007**

**(S.I. No.540 of 2007)**

**PPA1473/010/001**

Case No: 2054096

The Irish Medicines Board in exercise of the powers conferred on it by the above mentioned Regulations hereby grants to

**McDowell Pharmaceuticals**

**4 Altona Road, Lisburn, N. Ireland, BT27 5QB**

an authorisation, subject to the provisions of the said Regulations, in respect of the product

**Nizoral 20 mg/g Shampoo**

The particulars of which are set out in Part I and Part II of the attached Schedule. The authorisation is also subject to the general conditions as may be specified in the said Regulations as listed on the reverse of this document.

This authorisation, unless previously revoked, shall continue in force from **24/04/2009**.

Signed on behalf of the Irish Medicines Board this

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A person authorised in that behalf by the said Board.

## Part II

### Summary of Product Characteristics

#### 1 NAME OF THE MEDICINAL PRODUCT

Nizoral 20 mg/g Shampoo

#### 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each gram of shampoo contains 20 mg ketoconazole.  
For a full list of excipients, see section 6.1.

#### 3 PHARMACEUTICAL FORM

Shampoo  
*Product imported from the UK*  
Pink, viscous shampoo.

#### 4 CLINICAL PARTICULARS

##### 4.1 Therapeutic Indications

In the prevention and treatment of infections in which *Malassezia* (previously called *Pityrosporum*) infection may be a factor, such as seborrhoea capitis, seborrhoeic dermatitis of the body or tinea (pityriasis) versicolor.

##### 4.2 Posology and method of administration

###### Seborrhoea capitis

Apply the shampoo to the affected scalp, leave for three minutes, then rinse.

###### Seborrhoeic dermatitis

Wash the affected areas with shampoo and leave for 3 to 5 minutes before rinsing.

Treatment should be repeated twice weekly for 2 to 4 weeks.

For prophylaxis use once, every 1 to 2 weeks.

###### Tinea versicolor

Use once daily for up to 5 days.

For prophylaxis, use once daily for 3 days before prolonged exposure to the sun.

###### Method of administration

Cutaneous use.

##### 4.3 Contraindications

Use in patients hypersensitive to any of the ingredients.

#### 4.4 Special warnings and precautions for use

In patients who have been on prolonged treatment with topical corticosteroids, it is recommended that the steroid therapy be gradually withdrawn over a period of 2 to 3 weeks, while using Nizoral Shampoo, to prevent any potential rebound effect.

Seborrhoeic dermatitis and dandruff are often associated with increased hair shedding and this has also been reported, although rarely, with the use of Nizoral Shampoo.

Keep out of the eyes. If the shampoo should get into the eyes, they should be bathed with water.

#### 4.5 Interaction with other medicinal products and other forms of interaction

None known.

#### 4.6 Pregnancy and lactation

There are no adequate and well controlled studies in pregnant or lactating women. To date, no other relevant epidemiological data are available. Data on a limited number of exposed pregnancies indicate no adverse effects of Ketoconazole on pregnancy or on the health of the foetus/newborn child. Animal studies have shown reproductive toxicity following oral administration of ketoconazole. (see Preclinical safety data, section 5.3). No effects on the breastfed newborn/infant are anticipated. See Pharmacokinetic properties, section 5.2.

#### 4.7 Effects on ability to drive and use machines

Not applicable.

#### 4.8 Undesirable effects

As with other shampoos, a local burning sensation, itching or contact dermatitis (due to irritation or allergy) may occur on exposed areas. Oily and dry hair have been reported rarely with the use of Nizoral shampoo.

In rare instances, mainly in patients with chemically damaged hair or grey hair, a discolouration of the hair has been observed with the use of Nizoral Shampoo.

Additional adverse drug reactions reported in postmarketing reports with Nizoral Shampoo are included in Table 1. The frequencies are based on spontaneous reporting rates, according to the following convention:

Very common  $\geq 1/10$

Common  $\geq 1/100$  and  $< 1/10$

Uncommon  $\geq 1/1,000$  and  $< 1/100$

Rare  $\geq 1/10,000$ ,  $< 1/1,000$

Very rare  $< 1/10,000$ , including isolated reports

| <b>Table 1. Adverse Drug Reactions Identified During Postmarketing Experience with Nizoral Shampoo by Frequency Category Estimated from Spontaneous Reporting Rates</b> |  |
|---|--|
| <b>Immune System Disorders</b>  |  |
| <i>Very Rare</i>  | Hypersensitivity   |
| <b>Skin and Subcutaneous tissue Disorder</b>  |  |
| <i>Very Rare</i>  | Alopecia (Also see Section 4.4 under Special Warnings and Special Precautions For Use), Rash, Urticaria, Skin irritation, Dry skin |
| <b>General Disorders and Administration Site Conditions</b>   |  |
| <i>Very Rare</i>  | Application site reaction  |

## 4.9 Overdose

In the event of accidental ingestion, only supportive measures should be carried out. In order to avoid aspiration, neither emesis nor gastric lavage should be performed.

## 5 PHARMACOLOGICAL PROPERTIES

Ketoconazole is a synthetic imidazole dioxolane derivative with potent antifungal activity against dermatophytes, such as *Trichophyton* spp., *Epidermophyton* spp., *Microsporum* spp., and yeasts, such as *Candida* spp. and *Malassezia* spp. (*Pityrosporum* spp.).

### 5.1 Pharmacodynamic properties

Ketoconazole is a synthetic imidazole dioxolane derivative with potent antifungal activity against dermatophytes, such as *Trichophyton* spp., *Epidermophyton* spp., *Microsporum* spp., and yeasts, such as *Candida* spp. and *Malassezia* spp. (*Pityrosporum* spp.).

### 5.2 Pharmacokinetic properties

Plasma concentrations of ketoconazole were not detectable after topical administration of Nizoral Shampoo on the scalp. Plasma levels were detected after topical administration of Nizoral Shampoo on the whole body.

### 5.3 Preclinical safety data

Preclinical data reveal no special hazard for humans based on conventional studies including acute oral and dermal toxicity, primary ocular irritation, repeat-dose dermal irritation and dermal toxicity. Ketoconazole has been shown to be teratogenic (syndactylia and oligodactylia) in the rat when given orally in the diet at 80 mg/kg/day; a dose that is 10 times above the maximum human oral dose on a mg/kg basis and more than 6000 times the plasma detection limit which was not reached in animal topical studies conducted by the Market Authorisation Holder.

## **6 PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Sodium lauryl ether sulphate  
Disodium monolauryl ether sulphosuccinate  
Coconut fatty acid diethanolamide  
Laurdimonium hydrolysed animal collagen  
Macrogol 120 methyl glucose dioleate  
Sodium chloride  
Concentrated hydrochloric acid  
Imidurea  
Sodium hydroxide  
Erythrosine sodium (E127)  
Purified water

### **6.2 Incompatibilities**

Not applicable.

### **6.3 Shelf Life**

The shelf life expiry date for this product shall be the date shown on the container and outer package of the product on the market in the country of origin

### **6.4 Special precautions for storage**

Do not store above 25°C.

### **6.5 Nature and contents of container**

Overlabelled high-density polyethylene bottle containing 120 ml shampoo.

### **6.6 Special precautions for disposal of a used medicinal product or waste materials derived from such medicinal product and other handling of the product**

No special requirements

## **7 Parallel Product Authorisation Holder**

McDowell Pharmaceuticals  
4 Altona Road,  
Lisburn  
N.Ireland BT27 5QB

## **8 Parallel Product Authorisation Number**

PPA 1473/10/1

## **9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of First Authorisation: 24th April 2009

**10 DATE OF REVISION OF THE TEXT**