1. Product Name
Dermol, 0.05% w/w, scalp lotion.

2. Qualitative and Quantitative Composition
Each 1 g of scalp lotion contains 0.5 mg of clobetasol propionate.
For the full list of excipients, see section 6.1.

3. Pharmaceutical Form
The scalp lotion is an almost clear, colourless liquid.

4. Clinical Particulars

4.1 Therapeutic indications
Treatment of psoriasis and recalcitrant eczemas of the scalp.

4.2 Dose and method of administration
Dose
Adults, elderly and children over 1 year
A small quantity of clobetasol should be applied to the scalp night and morning until improvement is noticeable. It may then be possible to sustain improvement by applying once a day, or less frequently.

Special populations
Elderly
Clinical studies have not identified differences in responses between the elderly and younger patients. The greater frequency of decreased hepatic or renal function in the elderly may delay elimination if systemic absorption occurs. Therefore the minimum quantity should be used for the shortest duration to achieve the desired clinical benefit.

Renal and hepatic impairment
In case of systemic absorption (when application is over a large surface area for a prolonged period) metabolism and elimination may be delayed therefore increasing the risk of systemic toxicity. Therefore the minimum quantity should be used for the shortest duration to achieve the desired clinical benefit.
Paediatric
Children are more likely to develop local and systemic side effects of topical corticosteroids and, in general, require shorter courses and less potent agents than adults.

Care should be taken when using clobetasol propionate to ensure the amount applied is the minimum that provides therapeutic benefit.

Courses should be limited if possible to a few days and reviewed weekly.

**Method of administration**
A small quantity of clobetasol should be applied to the scalp.

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

Infections of the scalp.

Dermatoses in children under one year of age, including dermatitis.

**4.4 Special warnings and precautions for use**
Care must be taken to keep the preparation away from the eyes. Patients should be advised to avoid:

- smoking whilst applying to the scalp
- fire, flame and heat including use of hair dryer after application.

Clobetasol should be used with caution in patients with a history of local hypersensitivity to other corticosteroids or to any of the excipients in the preparation. Local hypersensitivity reactions (see section 4.8) may resemble symptoms of the condition under treatment.

Manifestations of hypercortisolism (Cushing's syndrome) and reversible hypothalamic-pituitary-adrenal (HPA) axis suppression, leading to glucocorticosteroid insufficiency, can occur in some individuals as a result of increased systemic absorption of topical steroids. If either of the above are observed, withdraw the medicine gradually by reducing the frequency of application, or by substituting a less potent corticosteroid. Abrupt withdrawal of treatment may result in glucocorticosteroid insufficiency (see section 4.8).

Risk factors for increased systemic effects are:

- Potency and formulation of topical steroid
- Duration of exposure
- Application to a large surface area
- Use on occluded areas of skin (e.g. on intertriginous areas or under occlusive dressings (in infants the nappy may act as an occlusive dressing)
- Increasing hydration of the stratum corneum
- Use on thin skin areas such as the face
- Use on broken skin or other conditions where the skin barrier may be impaired
- In comparison with adults, children and infants may absorb proportionally larger amounts of topical corticosteroids and thus be more susceptible to systemic adverse effects. This is because children have an immature skin barrier and a greater surface area to body weight ratio compared with adults.

**Use in psoriasis**
Topical corticosteroids should be used with caution in psoriasis as rebound relapses, development of tolerances, risk of generalised pustular psoriasis and development of local or systemic toxicity
due to impaired barrier function of the skin have been reported in some cases. If used in psoriasis careful patient supervision is important.

**Concomitant infection**
Appropriate antimicrobial therapy should be used whenever treating inflammatory lesions which have become infected. Any spread of infection requires withdrawal of topical corticosteroid therapy and administration of appropriate antimicrobial therapy.

**Paediatric population**
In infants and children under 12 years of age, long-term continuous topical therapy should be avoided where possible, particularly in infants and children, as adrenal suppression can occur.

Children are more susceptible to develop atrophic changes with the use of topical corticosteroids.

Courses should be limited if possible to a few days and reviewed weekly.

**Visual disturbance**
Visual disturbance may be reported with systemic and topical corticosteroid use. If a patient presents with symptoms such as blurred vision or other visual disturbances, the patient should be considered for referral to an ophthalmologist for evaluation of possible causes which may include cataract, glaucoma or rare diseases such as central serous chorioretinopathy (CSCR) which have been reported after use of systemic and topical corticosteroids.

**4.5 Interaction with other medicines and other forms of interaction**
Co-administered medicines that can inhibit CYP3A4 (e.g. ritonavir and itraconazole) have been shown to inhibit the metabolism of corticosteroids leading to increased systemic exposure. The extent to which this interaction is clinically relevant depends on the dose and route of administration of the corticosteroids and the potency of the CYP3A4 inhibitor.

**4.6 Fertility, pregnancy and lactation**

**Pregnancy**
There are limited data from the use of clobetasol in pregnant women.

Topical administration of corticosteroids to pregnant animals can cause abnormalities of foetal development, including cleft palate and intrauterine growth retardation (see section 5.3).

The relevance of this finding to human beings has not been established. Administration of clobetasol during pregnancy should only be considered if the expected benefit to the mother outweighs the risk to the foetus. The minimum quantity should be used for the minimum duration.

**Breast-feeding**
The safe use of clobetasol propionate during lactation has not been established.

It is not known whether the topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable amounts in breast milk. Administration of clobetasol during lactation should only be considered if the expected benefit to the mother outweighs the risk to the infant.

If used during lactation clobetasol should not be applied to the breasts to avoid accidental ingestion by the infant.

**Fertility**
There are no data in humans to evaluate the effect of topical corticosteroids on fertility.
Clobetasol administered subcutaneously to rats had no effect upon mating performance; however, fertility was decreased at the highest dose (see section 5.3).

4.7 Effects on ability to drive and use machines

There have been no studies to investigate the effect of clobetasol on driving performance or the ability to operate machinery. A detrimental effect on such activities would not be anticipated from the adverse reaction profile of topical clobetasol.

4.8 Undesirable effects

Reporting of suspected adverse reactions - Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Healthcare professionals are asked to report any suspected adverse reactions https://nzphvc.otago.ac.nz/reporting/.

Adverse drug reactions (ADRs) are listed below by MedDRA system organ class and by frequency. Frequencies are defined as: very common (≥ 1/10), common (≥ 1/100 and < 1/10), uncommon (≥ 1/1,000 and < 1/100), rare (≥ 1/10,000 and < 1/1,000) and very rare (< 1/10,000), including isolated reports.

Post-marketing data

Infections and Infestations

Very rare Opportunistic infection

Immune system disorders

Very rare Hypersensitivity, generalised rash

Endocrine disorders

Very rare Hypothalamic-pituitary adrenal (HPA) axis suppression: Cushingoid features (e.g. moon face, central obesity), delayed weight gain/growth retardation in children, osteoporosis, glaucoma, hyperglycaemia/glucosuria, cataract, hypertension, increased weight/obesity, decreased endogenous cortisol levels, alopecia, trichorrhexis

Skin and subcutaneous tissue disorders

Common Pruritus, local skin burning/skin pain

Uncommon Skin atrophy*, striae*, telangiectasis*

Very rare Skin thinning*, skin wrinkling, skin dryness*, pigmentation changes*, hypertrichosis, exacerbation of underlying symptoms, allergic contact dermatitis/dermatitis, pustular psoriasis, erythema, rash, urticaria, acne

* Skin features secondary to local and/or systemic effects of hypothalamic-pituitary adrenal (HPA) axis suppression.

General disorders and administration site conditions

Very rare Application site irritation/pain

Eye disorders

Not known: Vision, blurred (see section 4.4)

4.9 Overdose

Symptoms and signs
Topically applied clobetasol may be absorbed in sufficient amounts to produce systemic effects. Acute overdosage is very unlikely to occur, however, in the case of chronic overdosage or misuse, the features of hypercortisolism may occur (see section 4.8).

**Treatment**

In the event of overdose, clobetasol should be withdrawn gradually by reducing the frequency of application or by substituting a less potent corticosteroid because of the risk of glucocorticosteroid insufficiency.

For further advice on management of overdose please contact the National Poisons Information Centre (0800 POISON or 0800 764 766).

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### 5. Pharmacological Properties

#### 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Corticosteroids, very potent (group IV), ATC code: D07AD01

**Mechanism of action**

Topical corticosteroids act as anti-inflammatory agents via multiple mechanisms to inhibit late phase allergic reactions including decreasing the density of mast cells, decreasing chemotaxis and activation of eosinophils, decreasing cytokine production by lymphocytes, monocytes, mast cells and eosinophils, and inhibiting the metabolism of arachidonic acid.

**Pharmacodynamic effects**

Clobetasol propionate is a highly active topical corticosteroid with anti-inflammatory, antipruritic and vasoconstrictive activity.

#### 5.2 Pharmacokinetic properties

**Absorption**

Topical corticosteroids can be systemically absorbed from intact healthy skin. The extent of percutaneous absorption of topical corticosteroids is determined by many factors, including the vehicle and the integrity of the epidermal barrier. Occlusion, inflammation and/or other disease processes in the skin may also increase percutaneous absorption.

**Distribution**

The use of pharmacodynamic endpoints for assessing the systemic exposure of topical corticosteroids is necessary due to the fact that circulating levels are well below the level of detection.

**Biotransformation**

Once absorbed through the skin, topical corticosteroids are handled through pharmacokinetic pathways similar to systemically administered corticosteroids. They are metabolised, primarily in the liver.

**Elimination**

Topical corticosteroids are excreted by the kidneys. In addition, some corticosteroids and their metabolites are also excreted in the bile.

#### 5.3 Preclinical safety data

**Carcinogenesis**
Long-term animal studies have not been performed to evaluate the carcinogenic potential of clobetasol propionate.

**Genotoxicity**

Clobetasol propionate was not mutagenic in a range of *in vitro* bacterial cell assays.

**Fertility**

In fertility studies, subcutaneous administration of clobetasol propionate to rats at doses of 6.25 to 50 micrograms/kg/day produced no effects on mating, and fertility was only decreased at 50 micrograms/kg/day.

**Pregnancy**

Subcutaneous administration of clobetasol propionate to mice (≥ 100 micrograms/kg/day), rats (400 micrograms/kg/day) or rabbits (1 to 10 micrograms/kg/day) during pregnancy produced foetal abnormalities including cleft palate and intrauterine growth retardation.

In the rat study, where some animals were allowed to litter, developmental delay was observed in the F1 generation at ≥ 100 micrograms/kg/day and survival was reduced at 400 micrograms/kg/day. No treatment-related effects were observed in F1 reproductive performance or in the F2 generation.

### 6. Pharmaceutical Particulars

**6.1 List of excipients**

In addition to the active substance, DERMOL scalp lotion also contains isopropyl alcohol, sodium hydroxide, carbomer 934P and purified water.

**6.2 Incompatibilities**

Not applicable.

**6.3 Shelf life**

2 years.

**6.4 Special precautions for storage**

Store below 25°C.

**6.5 Nature and contents of container**

HDPE squeeze bottle with an elongated nozzle and LDPE cap. Pack-size of 30 ml.

**6.6 Special precautions for disposal**

Not applicable.

### 7. Medicines Schedule

Prescription Medicine

### 8. Sponsor Details

Mylan New Zealand Ltd
PO Box 11183
9. Date of First Approval

25 July 1991

10. Date of Revision of the Text

11 June 2018

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