LOPROX (ciclopirox) Shampoo 1% contains the active ingredient ciclopirox (equivalent to 0.96 mL) of LOPROX Shampoo to the scalp. Up to 2 teaspoons of LOPROX Shampoo are applied to the scalp twice per week for 4 weeks. Subjects who were not cured during the treatment with LOPROX Shampoo were enrolled in the two pivotal trials. Efficacy results for the two trials are presented in Table 1 below.

2.1 Local Effects
Shampoo was shown to be statistically significantly more effective than vehicle in both trials. Efficacy results for the two trials are presented in Table 1 below.

6.2 Post Marketing Experience
During post approval use of LOPROX Shampoo: hair discoloration was reported. In patients with lighter hair color, hair discoloration was noted at the highest dose of 77, 125, and 383 mg/kg/day ciclopirox in mice, rats, rabbits, and monkeys, respectively (approximately 13, 42, 28, and 59 times the maximum recommended human dose based on body surface area comparisons, respectively). Dermal oral developmental studies were conducted in rats and rabbits with ciclopirox disulfide in PEG 400. Ciclopirox disulfide was used orally during the period of organogenesis. No maternal toxicity, embryotoxicity or teratogenicity were noted at the highest doses of 92 mg/kg/day and 77 mg/kg/day ciclopirox in rabbits and rats, respectively (approximately 6 and 3 times the maximum recommended human dose based on body surface area comparisons, respectively).

7. PATIENT COUNSELING INFORMATION

12.1 Mechanism of Action
Ciclopirox is a hydroxypropyl antifungal agent although the relevance of this property for the indication of seborrheic dermatitis is unknown. Ciclopirox acts by chelation of polyvalent cations (Fe3+ or Al3+), resulting in the inhibition of the metal-dependent lipoxygenase responsible for the degradation of peroxides within the fungal cell.

12.2 Pharmacodynamics
The pharmacodynamics of LOPROX Shampoo are unknown.

12.3 Pharmacokinetics
In a study in patients with seborrheic dermatitis of the scalp, application of 5 mL ciclopirox shampoo 1% twice weekly for 4 weeks, with an exposure time of 3 minutes per application, resulted in detectable serum concentrations of ciclopirox in 6 out of 18 patients. The serum concentrations measured through the dosing interval on Days 1 and 16 ranged from 10.3 ng/mL to 13.2 ng/mL. Total urinary excretion of ciclopirox was less than 0.5% of the administered dose.

12.4 Microbiology
Ciclopirox is fungicidal in vitro against Malassezia furfur (Pityrosporum ovale), P. fungi, and T. rubricaris. The clinical significance of antifungal activity in the treatment of seborrheic dermatitis is not known.

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
A 104-week dietary study in mice was conducted with ciclopirox cream applied at doses up to 1.33% (100 mg/kg/day or 300 mg/m2/day). No increase in the incidence of neoplasia was noted when compared to control.

The following in vitro genotoxicity tests have been performed with ciclopirox: evaluation of gene mutation in the Ames Salmonella and Es. coli assays (negative); chromosome aberration assays in V79 Chinese hamster lung fibroblast cells, with and without metabolic activation (positive); chromosome aberration assays in V79 Chinese hamster lung fibroblast cells in the presence of supplementary Fe3+.

13.2 Local and Systemic Toxicity
In addition to the skin toxicity, ciclopirox was shown to be non-mutagenic in the mouse micronucleus assay.

13.3 Impairment of Fertility
Ciclopirox or ciclopirox olamine was orally administered to male and female rats at a dose of 900 mg/kg/day (approximately 20 times the maximum recommended human dose based on body surface area comparisons). No maternal toxicity, embryotoxicity or teratogenicity were noted. A single dose study was conducted in rats with ciclopirox in the diet for 4 days. A single dose study was conducted in rats with ciclopirox in the diet for 4 days. Oral embryofetal developmental studies were conducted in rats and rabbits with ciclopirox disulfide in PEG 400. Ciclopirox disulfide was used orally during the period of organogenesis. No maternal toxicity, embryotoxicity or teratogenicity were noted at the highest doses of 92 mg/kg/day and 77 mg/kg/day ciclopirox in rabbits and rats, respectively (approximately 6 and 3 times the maximum recommended human dose based on body surface area comparisons, respectively).

15.2 Pregnancy
Ciclopirox olamine was administered to pregnant rats at a dose of 200 mg/kg/day (approximately 9 times the maximum recommended human dose based on body weight of 207 .27 . The CAS Registry Number is 518-82-2. The molecular formula is C36H36O6P3.

15.5 Use in Women Planning Pregnancy
The pharmacokinetics of LOPROX Shampoo are unknown.

15.6 Use in Pregnancy
There are no adequate or well-controlled studies in pregnancy. LOPROX Shampoo should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

15.7 Lactation
LOPROX Shampoo is not for ophthalmic, oral, or intravaginal use. LOPROX Shampoo is a colorless, translucent shampoo base consisting of disodium laureth sulfosuccinate, laurolactamide dimethyl diethylammonium chloride, sodium chloride, and sodium lauryl ether sulfate. Each gram (equivalent to 0.96 mL) of LOPROX Shampoo contains 10 mg ciclopirox in a colorless and translucent shampoo base. LOPROX Shampoo is a colorless, translucent solution. The chemical name for ciclopirox is 6-cyclohexyl-1-hydroxy-4-methyl-2(1H) indoline, with the empirical formula C16H15NO2, and a molecular weight of 234.3. The CAS Registry Number is 29342-06-0.

16 HOW SUPPLIED/STORAGE AND HANDLING
LOPROX (ciclopirox) Shampoo 1% is colorless and translucent, and supplied in 120 mL plastic bottles (NDC 99207/101-10). Discontinue unused product after initial treatment duration. Store between 18°C and 30°C (66°F and 86°F). Keep out of reach of children.

17 PATIENT COUNSELING INFORMATION
Advisory the patient to read the FDA-approved patient labeling (Patient Information).
The patient should be instructed to:

• Use LOPROX Shampoo as directed by the physician. Avoid contact with the eyes. If contact occurs, rinse thoroughly with water. LOPROX Shampoo is for external use on the scalp only. Do not swallow.

• Use LOPROX Shampoo for seborrheic dermatitis for the full treatment time even though symptoms may have improved. Notify the physician if there is no improvement after 4 weeks.

• Inform the physician if the area of application shows signs of increased irritation (redness, itching, burning, blistering, swelling, or oozing).

Patient Information

LOPROX® (loh-proks) (ciclopirox) Shampoo

Important: For use on the scalp only. Do not get LOPROX Shampoo in your eyes, mouth, or vagina.

What is LOPROX Shampoo?
LOPROX Shampoo is a prescription medicine used on the scalp to treat adults with a skin condition called seborrheic dermatitis.

It is not known if LOPROX Shampoo is safe and effective in children under 16 years of age.

What should I tell my doctor before using LOPROX Shampoo?

Before using LOPROX Shampoo, tell your doctor if you:

• Have any other medical conditions
• Are pregnant or plan to become pregnant. It is not known if LOPROX Shampoo will harm your unborn baby.
• Are breastfeeding or plan to breastfeed. It is not known if LOPROX Shampoo passes into your breast milk.
• Are taking prescription and non-prescription medicines, vitamins, and herbal supplements.

Know the medicines you take. Keep a list of them to show your doctor and pharmacist when you get a new medicine.

How should I use LOPROX Shampoo?

• Use LOPROX Shampoo exactly as your doctor tells you to use it.
• Wash your hair using LOPROX Shampoo 2 times each week for 4 weeks. There should be at least 3 days between each time you use LOPROX Shampoo.
• Use LOPROX Shampoo for 4 weeks even if your skin condition improves.
• Tell your doctor if your scalp condition is not getting better after you have used LOPROX Shampoo for 4 weeks.
• Do not swallow LOPROX Shampoo.
• Avoid getting LOPROX Shampoo in your eyes. If LOPROX Shampoo gets into your eyes, rinse them well with water.

How should I apply LOPROX Shampoo?

• Wet your hair and apply approximately 1 teaspoon of LOPROX Shampoo to your scalp. You may use up to 2 teaspoons of LOPROX Shampoo if you have long hair. Lather and leave LOPROX Shampoo on your hair and scalp for 3 minutes. You may use a timer.
• After 3 minutes have passed, rinse your hair and scalp.

What are the possible side effects of LOPROX Shampoo?

The most common side effects of LOPROX Shampoo include: itching, burning, and redness of the scalp. Tell your doctor if you get any of these symptoms and they become worse or do not go away, or if you get blistering, swelling, or oozing in your scalp.

The side effects of LOPROX Shampoo that are not all the possible side effects of LOPROX Shampoo. For more information, ask your doctor.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store LOPROX Shampoo?

• Store LOPROX Shampoo at room temperature, between 59°F to 86°F (15°C to 30°C).
• Safely throw away any unused LOPROX Shampoo after you finish your treatment.

Keep LOPROX Shampoo and all medicines out of the reach of children.

General information about LOPROX Shampoo

Medicines are sometimes prescribed for purposes other than those listed in a Patient Information leaflet. Do not use LOPROX Shampoo for a condition for which it was not prescribed. Do not give LOPROX Shampoo to other people, even if they have the same symptoms you have. It may harm them.

You can ask your pharmacist or doctor for information about LOPROX Shampoo that is written for health professionals.

For more information about LOPROX Shampoo, call 1-800-321-4576.

What are the ingredients in LOPROX Shampoo?

Active ingredients: ciclopirox

Inactive ingredients: disodium laureth sulfosuccinate, laureth-2, purified water, sodium chloride, and sodium laureth sulfate.

Manufactured for:

Valeant Pharmaceuticals North America LLC
Bridgewater, NJ 08807 USA

Manufactured by:

Valeant Pharmaceuticals International Inc.
Laval, Quebec, H7L 4A8, Canada

This Patient Information has been approved by the U.S. Food and Drug Administration.


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