FLUOCINONIDE- fluocinonide solution Novel Laboratories, Inc.

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Fluocinonide Topical Solution USP, 0.05%

#### FOR TOPICAL USE ONLY. NOT FOR OPHTHALMIC USE.

RX only

#### **DESCRIPTION**

Fluocinonide Topical Solution USP, 0.05% is intended for topical administration. The active component is the corticosteroid fluocinonide, which is the 21-acetate ester of fluocinolone acetonide and has the chemical name pregna-1,4-diene-3,20-dione,21-(acetyloxy)-6,9-difluoro-11-hydroxy-16,17-[(1-methylethylidene)bis(oxy)]-,( $6\alpha$ ,11 $\beta$ ,16 $\alpha$ )-. It has the following chemical structure:

Fluocinonide Topical Solution USP, 0.05% contains fluocinonide 0.5 mg/mL in a solution of citric acid, ethyl alcohol (35%), diisopropyl adipate, propylene glycol and purified water. In this formulation, the active ingredient is totally in solution.

#### CLINICAL PHARMACOLOGY

Topical corticosteroids share anti-inflammatory, anti-pruritic and vasoconstrictive actions.

The mechanism of anti-inflammatory activity of the topical corticosteroids is unclear. Various laboratory methods, including vasoconstrictor assays, are used to compare and predict potencies and/or clinical efficacies of the topical corticosteroids. There is some evidence to suggest that a recognizable correlation exists between vasoconstrictor potency and therapeutic efficacy in man.

#### **Pharmacokinetics**

The extent of percutaneous absorption of topical corticosteroids is determined by many factors including the vehicle, the integrity of the epidermal barrier, and the use of occlusive dressings. A significantly greater amount of fluocinonide is absorbed from the solution than from the cream or gel formulations.

Topical corticosteroids can be absorbed from normal intact skin. Inflammation and/or other disease processes in the skin increase percutaneous absorption. Occlusive dressings substantially increase the percutaneous absorption of topical corticosteroids. Thus, occlusive dressings may be a valuable therapeutic adjunct for treatment of resistant dermatoses (see **DOSAGE AND ADMINISTRATION**).

Once absorbed through the skin, topical corticosteroids are handled through pharmacokinetic pathways similar to systemically administered corticosteroids. Corticosteroids are bound to plasma proteins in varying degrees. Corticosteroids are metabolized primarily in the liver and are then excreted by the kidneys. Some of the topical corticosteroids and their metabolites are also excreted into the bile.

#### INDICATIONS AND USAGE

Fluocinonide Topical Solution USP, 0.05% is indicated for the relief of the inflammatory and pruritic manifestations of corticosteroid-responsive dermatoses.

#### CONTRAINDICATIONS

Topical corticosteroids are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparation.

#### **PRECAUTIONS**

#### General

Systemic absorption of topical corticosteroids has produced reversible hypothalamic-pituitary-adrenal (HPA) axis suppression, manifestations of Cushing's syndrome, hyperglycemia, and glucosuria in some patients. Conditions which augment systemic absorption include the application of the more potent steroids, use over large surface areas, prolonged use, and the addition of occlusive dressings, and dosage form.

Therefore, patients receiving a large dose of a potent topical steroid applied to a large surface area or under an occlusive dressing should be evaluated periodically for evidence of HPA axis suppression by using the urinary free cortisol and ACTH stimulation tests. If HPA axis suppression is noted, an attempt should be made to withdraw the drug, to reduce the frequency of application, or to substitute a less potent steroid.

Recovery of HPA axis function is generally prompt and complete upon discontinuation of the drug. Infrequently, signs and symptoms of steroid withdrawal may occur, requiring supplemental systemic corticosteroids. Children may absorb proportionally larger amounts of topical corticosteroids and thus be more susceptible to systemic toxicity (see **PRECAUTIONS–Pediatric Use**).

This preparation is not for ophthalmic use. Severe irritation is possible if fluocinonide solution contacts the eye. If that should occur, immediate flushing of the eye with a large volume of water is recommended.

If irritation develops, topical corticosteroid should be discontinued and appropriate therapy instituted.

As with any topical corticosteroid product, prolonged use may produce atrophy of the skin and subcutaneous tissues. When used on intertriginous or flexor areas, or on the face, this may occur even with short-term use.

In the presence of dermatological infections, the use of an appropriate antifungal or antibacterial agent

should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

#### **Information for the Patient**

Patients using topical corticosteroids should receive the following information and instructions:

- 1. This medication is to be used as directed by the physician. It is for external use only. Avoid contact with the eyes. If there is contact with the eyes and severe irritation occurs, immediately flush with a large volume of water.
- 2. Patients should be advised not to use this medication for any disorder other than that for which it was prescribed.
- 3. The treated skin area should not be bandaged or otherwise covered or wrapped as to be occlusive unless directed by the physician.
- 4. Patients should report any signs of local adverse reactions, especially under occlusive dressing.
- 5. Parents of pediatric patients should be advised not to use tight-fitting diapers or plastic pants on a child being treated in the diaper area, as these garments may constitute occlusive dressings.

## Laboratory Tests

The following tests may be helpful in evaluating the HPA axis suppression:

Urinary free cortisol test

ACTH stimulation test

## Carcinogenesis, Mutagenesis, and Impairment of Fertility

Long-term animal studies have not been performed to evaluate the carcinogenic potential or the effect on fertility of topical corticosteroids. Studies to determine mutagenicity with prednisolone and hydrocortisone have revealed negative results.

### **Pregnancy Category C**

Corticosteroids are generally teratogenic in laboratory animals when administered systemically at relatively low dosage levels. The more potent corticosteroids have been shown to be teratogenic after dermal application in laboratory animals. There are no adequate and well-controlled studies in pregnant women on teratogenic effects from topically applied corticosteroids. Therefore, topical corticosteroids should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Drugs of this class should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time.

## **Nursing Mothers**

It is not known whether topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable quantities in breast milk. Systemically administered corticosteroids are secreted into breast milk in quantities *not* likely to have a deleterious effect on the infant. Nevertheless, caution should be exercised when topical corticosteroids are administered to a nursing woman.

#### Pediatric Use

Pediatric patients may demonstrate greater susceptibility to topical corticosteroid-induced HPA axis suppression and Cushing's syndrome than mature patients because of a larger skin surface area to body weight ratio.

Hypothalamic-pituitary-adrenal (HPA) axis suppression, Cushing's syndrome, and intracranial hypertension have been reported in children receiving topical corticosteroids. Manifestations of adrenal suppression in children include linear growth retardation, delayed weight gain, low plasma cortisol levels, and absence of response to ACTH stimulation. Manifestations of intracranial

hypertension include bulging fontanelles, headaches, and bilateral papilledema.

Administration of topical corticosteroids to children should be limited to the least amount compatible with an effective therapeutic regimen. Chronic corticosteroid therapy may interfere with the growth and development of children.

#### ADVERSE REACTIONS

The following local adverse reactions are reported infrequently with topical corticosteroids, but may occur more frequently with the use of occlusive dressings. These reactions are listed in an approximate decreasing order of occurrence:

Burning	Hypertrichosis	Maceration of the skin
Itching	Acneiform eruptions	Secondary infection
Irritation	Hypopigmentation	Skin atrophy
Dryness	Perioral dermatitis	Striae
Folliculitis	Allergic contact dermatitis	Miliaria

#### **OVERDOSAGE**

Topically applied corticosteroids can be absorbed in sufficient amounts to produce systemic effects (see **PRECAUTIONS**).

#### DOSAGE AND ADMINISTRATION

Fluocinonide Topical Solution USP, 0.05% is generally applied to the affected area as a thin film from two to four times daily depending on the severity of the condition.

Occlusive dressings may be used for the management of psoriasis or recalcitrant conditions.

If an infection develops, the use of the occlusive dressings should be discontinued and appropriate antimicrobial therapy instituted.

#### **HOW SUPPLIED**

Fluocinonide Topical Solution USP, 0.05% is supplied in

60mL HDPE Bottle-NDC 40032-026-06

Store at 20°-25°C (68°-77°F) [see USP Controlled Room Temperature]. Avoid excessive heat, above 40°C (104°F).

Manufactured by:

Novel Laboratories, Inc.

Somerset, NJ 08873

PI0260600101

Iss. 09/2016

#### PACKAGE LABEL PRINCIPAL DISPLAY PANEL

Fluocinonide Topical Solution USP, 0.05%

Container Label

NDC 40032-026-06

# Fluocinonide Topical Solution USP



Alcohol 35% v/v

FOR TOPICAL USE ONLY.
NOT FOR OPHTHALMIC USE

Keep this and all medication out of the reach of children.



Rx only

60 mL

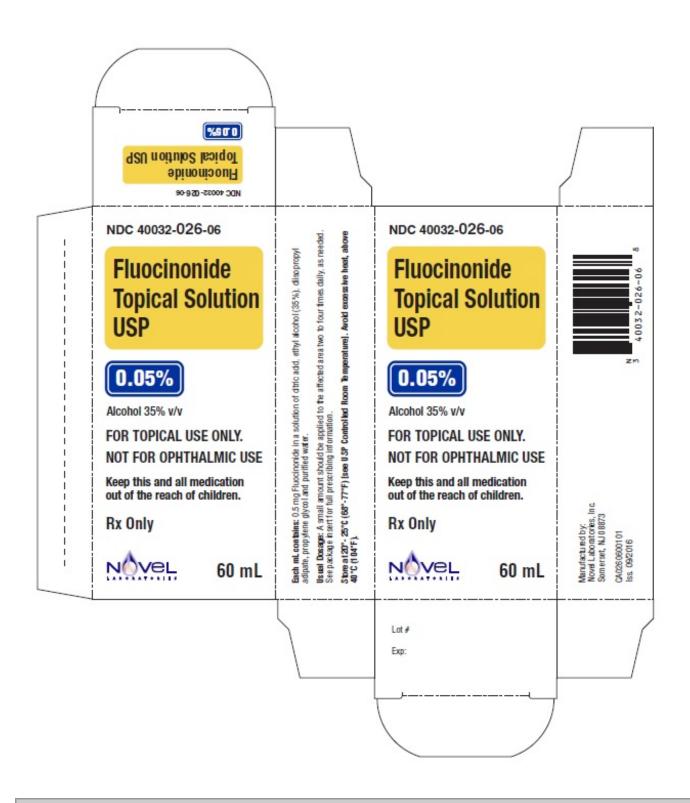
**Each mL contains:** 0.5 mg Fluocinonide in a solution of citric acid, ethyl alcohol (35%), diisopropyl adipate, propylene glycol and purified water.

**Usual Dosage:** A small amount should be applied to the affected area two to four times daily, as needed. See package insert for full prescribing information.

Store at 20°- 25°C (68°-77°F) [see USP Controlled Room Temperature]. Avoid excessive heat, above 40°C (104°F).



Carton Label



### **FLUOCINONIDE**

fluocinonide solution

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:40032-026
Route of Administration	TOPICAL		

## Active Ingredient/Active Moiety

Ingredient Name		Basis of Strength	Strength
FLU	O CINO NIDE (UNII: 2W4A77YPAN) (FLUOCINO NIDE - UNII: 2W4A77YPAN)	FLUOCINONIDE	0.5 mg in 1 mL

Inactive Ingredients		
Ingredient Name	Strength	
ANHYDRO US CITRIC ACID (UNII: XF417D3PSL)		
ALCOHOL (UNII: 3K9958V90M)		
DIISOPROPYL ADIPATE (UNII: P7E6 YFV72X)		
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)		
WATER (UNII: 059QF0KO0R)		

P	ackaging			
#	Item Code	Package Description	<b>Marketing Start Date</b>	Marketing End Date
1	NDC:40032-026-06	1 in 1 CARTON	07/21/2017	
1		60 mL in 1 BOTTLE; Type 0: Not a Combination Product		

Marketing Information			
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA206003	07/21/2017	

## Labeler - Novel Laboratories, Inc. (793518643)

## **Registrant -** Novel Laboratories, Inc. (793518643)

Establishment			
Name	Address	ID/FEI	Business Operations
Novel Laboratories, Inc.		793518643	ANALYSIS(40032-026), MANUFACTURE(40032-026), PACK(40032-026)

Revised: 9/2016 Novel Laboratories, Inc.