

# TRETINOIN- tretinoin gel

## Oceanside Pharmaceuticals

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### HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use Tretinoin Gel Microsphere safely and effectively. See full prescribing information for Tretinoin Gel Microsphere.

Tretinoin Gel Microsphere, 0.1% and 0.04%  
for topical use

Initial U.S. Approval: 1997

### INDICATIONS AND USAGE

Tretinoin Gel Microsphere, 0.1% and 0.04%, is a retinoid, indicated for topical treatment of acne vulgaris. (1)

### DOSAGE AND ADMINISTRATION

- Apply a thin layer of Tretinoin Gel Microsphere once daily, before bedtime, to skin where lesions occur. Keep away from eyes, mouth, nasal creases, and mucous membranes. (2)
- Not for oral, ophthalmic, or intravaginal use. (2)

### DOSAGE FORMS AND STRENGTHS

Gel, 0.1% and 0.04% (3)

### CONTRAINDICATIONS

None. (4)

### WARNINGS AND PRECAUTIONS

- Tretinoin Gel Microsphere should not be used on eczematous or sunburned skin due to potential for severe irritation. (5.1, 5.2)
- Avoid unprotected exposure to sunlight including sunlamps (UV light), when using Tretinoin Gel Microsphere due to potential for increased photosensitization. Use sunscreen of at least SPF 15 and protective clothing during exposure. (5.2)
- Avoid use of Tretinoin Gel Microsphere with weather extremes, such as wind or cold due to potential for increased irritation. (5.2)

### ADVERSE REACTIONS

Most common adverse reactions are skin pain, pruritus, skin irritation/subcutaneous irritation, pharyngitis, and erythema. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Valeant Pharmaceuticals North America LLC at 1-800-321-4576 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).

### USE IN SPECIFIC POPULATIONS

Tretinoin Gel Microsphere should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. There are no adequate and well-controlled studies in pregnant and nursing women. (8.1)

See 17 for PATIENT COUNSELING INFORMATION and FDA-approved patient labeling.

Revised: 4/2018

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## **FULL PRESCRIBING INFORMATION**

### **1 INDICATIONS AND USAGE**

Tretinoin Gel Microsphere is a retinoid indicated for topical application in the treatment of acne vulgaris.

### **2 DOSAGE AND ADMINISTRATION**

For topical use only. Not for ophthalmic, oral, or intravaginal use.

Tretinoin Gel Microsphere should be applied once a day, in the evening, to the skin where acne lesions appear, using enough to cover the entire affected area in a thin layer. Areas to be treated should be cleansed thoroughly before the medication is applied. If medication is applied excessively, no more rapid or better results will be obtained and marked redness, peeling, or discomfort may occur. A transitory feeling of warmth or slight stinging may be noted on application. In cases where it has been necessary to temporarily discontinue therapy or to reduce the frequency of application, therapy may be resumed or the frequency of application increased as the patient becomes able to tolerate the treatment. Frequency of application should be closely monitored by careful observation of the clinical therapeutic response and skin tolerance. Efficacy has not

been established for less than once daily dosing frequencies.

During the early weeks of therapy, an apparent exacerbation of inflammatory lesions may occur. If tolerated, this should not be considered a reason to discontinue therapy [see *Adverse Reactions (6.1)*].

Therapeutic results may be noticed after two weeks, but more than seven weeks of therapy are required before consistent beneficial effects are observed.

Tretinoin Gel Microsphere should be kept away from the eyes, the mouth, paranasal creases of the nose, and mucous membranes.

Patients treated with Tretinoin Gel Microsphere may use cosmetics.

Concomitant topical medication, medicated or abrasive soaps and cleansers, products that have a strong drying effect, products with high concentrations of alcohol, astringents, or spices should be used with caution because of possible interaction with tretinoin. Avoid contact with the peel of limes. Particular caution should be exercised with the concomitant use of topical over-the-counter acne preparations containing benzoyl peroxide, sulfur, resorcinol, or salicylic acid with Tretinoin Gel Microsphere. It also is advisable to allow the effects of such preparations to subside before use of Tretinoin Gel Microsphere is begun.

### **3 DOSAGE FORMS AND STRENGTHS**

Tretinoin Gel Microsphere is a white to very pale yellow opaque gel. Tretinoin Gel Microsphere is available in two strengths: 0.1% and 0.04%.

Each gram of Tretinoin Gel Microsphere, 0.1%, contains 1 mg of tretinoin.

Each gram of Tretinoin Gel Microsphere, 0.04%, contains 0.4 mg of tretinoin.

### **4 CONTRAINDICATIONS**

None.

### **5 WARNINGS AND PRECAUTIONS**

#### **5.1 Local Irritation**

The skin of certain individuals may become excessively dry, red, swollen, or blistered.

Tretinoin has been reported to cause severe irritation on eczematous skin and should be used with utmost caution in patients with this condition.

If the degree of irritation warrants, patients should be directed to temporarily reduce the amount or frequency of application of the medication, discontinue use temporarily, or discontinue use all together. Efficacy at reduced frequencies of application has not been established. If a reaction suggesting sensitivity occurs, use of the medication should be discontinued.

To help limit skin irritation, patients must

- wash the treated skin gently, using a mild, non-medicated soap, and pat it dry, and

- avoid washing the treated skin too often or scrubbing it hard when washing.

Patients should apply a topical moisturizer if dryness is bothersome.

## **5.2 Exposure to Ultraviolet Light or Weather Extremes**

Unprotected exposure to sunlight, including sunlamps (UV light) should be avoided or minimized during the use of Tretinoin Gel Microsphere and patients with sunburn should be advised not to use the product until fully recovered because of heightened susceptibility to sunlight as a result of the use of tretinoin. Patients who may be required to have extended periods of UV exposure (e.g., due to occupation or sports), or those with inherent sensitivity to the sun, or those using medications that cause photosensitivity, should exercise particular caution. Use of sunscreen products (SPF 15 or higher) and protective clothing over treated areas are recommended when exposure cannot be avoided [*see Nonclinical Toxicology (13.1)*].

Weather extremes, such as wind or cold, also may be irritating to tretinoin-treated skin.

## **6 ADVERSE REACTIONS**

### **6.1 Clinical Trials Experience**

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

#### *Clinical Trials in Subjects with Acne*

In separate clinical trials for each concentration, acne subjects treated with Tretinoin Gel Microsphere, 0.1% or 0.04%, over the twelve-week period showed that cutaneous irritation scores for erythema, peeling, dryness, burning/stinging, or itching peaked during the initial two weeks of therapy, decreasing thereafter.

Approximately half of the subjects treated with Tretinoin Gel Microsphere, 0.04%, had cutaneous irritation at Week 2. Of those subjects who did experience cutaneous side effects, most had signs or symptoms that were mild in severity (severity was ranked on a 4-point ordinal scale: 0=none, 1=mild, 2=moderate, and 3=severe). Less than 10% of patients experienced moderate cutaneous irritation and there was no severe irritation at Week 2.

In trials of Tretinoin Gel Microsphere, 0.04%, throughout the treatment period the majority of subjects experienced some degree of irritation (mild, moderate, or severe) with 1% (2/225) of subjects having scores indicative of a severe irritation; 1.3% (3/225) of subjects treated with Tretinoin Gel Microsphere, 0.04%, discontinued treatment due to irritation, which included dryness in one patient and peeling and urticaria in another.

In trials of Tretinoin Gel Microsphere, 0.1%, no more than 3% of subjects had cutaneous irritation scores indicative of severe irritation; 6% (14/224) of subjects treated with Tretinoin Gel Microsphere, 0.1%, discontinued treatment due to irritation. Of these 14 subjects, four had severe irritation after 3 to 5 days of treatment, with blistering in one subject.

In a double-blind trial with 156 acne subjects comparing 12 weeks of treatment with Tretinoin Gel Microsphere, 0.04% or 0.1%, (78 subjects each group), the most

frequently-reported adverse events affected the skin and subcutaneous tissue (15.4% in the 0.04% group, and 20.5% in the 0.1% group). The most prevalent of the dermatologic adverse events in the 0.04% group was skin irritation (6.4%); and in the 0.1% group skin burning (7.7%), erythema (5.1%), skin irritation (3.8%), and dermatitis (3.8%). Most adverse events were of mild intensity (63.4%), and 34.4% were moderate. One subject in each group had adverse events characterized as severe, neither were dermatologic findings and neither was characterized as related to drug by the investigator.

### *Trials in Subjects without Acne*

In a half-face comparison trial conducted for up to 14 days in women with sensitive skin, but without acne, Tretinoin Gel Microsphere, 0.1%, was statistically less irritating than tretinoin cream, 0.1%. In addition, a cumulative 21-day irritation evaluation in subjects with normal skin showed that Tretinoin Gel Microsphere, 0.1%, had a lower irritation profile than tretinoin cream, 0.1%. The clinical significance of these irritation studies for patients with acne is not established. Comparable effectiveness of Tretinoin Gel Microsphere, 0.1%, and tretinoin cream, 0.1%, has not been established. The lower irritancy of Tretinoin Gel Microsphere, 0.1%, in subjects without acne may be attributable to the properties of its vehicle. The contribution of decreased irritancy by the MICROSPONGE® System has not been established. No irritation trials have been performed to compare Tretinoin Gel Microsphere, 0.04%, with either Tretinoin Gel Microsphere, 0.1%, or tretinoin cream, 0.1%.

## **6.2 Postmarketing Experience**

The following adverse reactions have been identified during post-approval use of Tretinoin Gel Microsphere. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Temporary hyper- or hypopigmentation has been reported with repeated application of tretinoin.

## **8 USE IN SPECIFIC POPULATIONS**

### **8.1 Pregnancy**

#### Pregnancy Category C

There are no adequate and well-controlled studies in pregnant women. Tretinoin Gel Microsphere should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Thirty human cases of temporally associated congenital malformations have been reported during two decades of clinical use of tretinoin products. Although no definite pattern of teratogenicity and no causal association has been established from these cases, five of the reports describe the rare birth defect category holoprosencephaly (defects associated with incomplete midline development of the forebrain). The significance of these spontaneous reports in terms of risk to the fetus is not known.

For purposes of comparison of the animal exposure to systemic human exposure, the MRHD applied topically is defined as 1 gram of Tretinoin Gel Microsphere, 0.1%, applied

daily to a 60 kg person (0.017 mg tretinoin/kg body weight).

Pregnant rats were treated with Tretinoin Gel Microsphere, 0.1%, at daily dermal doses of 0.5 to 1.0 mg/kg/day tretinoin on gestation days 6-15. Alterations were seen in vertebrae and ribs of offspring at 5 to 10 times the MRHD based on the body surface area (BSA) comparison.

Pregnant New Zealand White rabbits were treated with Tretinoin Gel Microsphere, 0.1%, at daily dermal doses of 0.2, 0.5, and 1.0 mg/kg/day tretinoin on gestation days 7-19. Doses were administered topically for 24 hours a day while wearing Elizabethan collars to prevent ingestion of the drug. Increased incidences of certain alterations, including domed head and hydrocephaly, typical of retinoid-induced fetal malformations in this species, were observed at 0.5 and 1.0 mg/kg/day. Similar malformations were not observed at 0.2 mg/kg/day, 4 times the MRHD based on BSA comparison. Other pregnant rabbits exposed topically for six hours per day to 0.5 or 1.0 mg/kg/day tretinoin while restrained in stocks to prevent ingestion, did not show any malformations at doses up to 19 times (1.0 mg/kg/day) the MRHD based on BSA comparison, but fetal resorptions were increased at 0.5 mg/kg (10 times the MRHD based on BSA comparison).

Oral tretinoin has been shown to cause malformations in rats, mice, rabbits, hamsters, and nonhuman primates.

Tretinoin induced fetal malformations in Wistar rats when given orally at doses greater than 1 mg/kg/day (10 times the MRHD based on BSA comparison). In the cynomolgus monkey, fetal malformations were reported for doses of 10 mg/kg/day but none were observed at 5 mg/kg/day (95 times the MRHD based on BSA comparison), although increased skeletal variations were observed at all doses. Dose-related increases in embryoletality and abortion also were reported. Similar results have also been reported in pigtail macaques.

In oral peri- and postnatal development studies in rats with tretinoin, decreased survival of neonates and growth retardation were observed at doses in excess of 2 mg/kg/day (19 times the MRHD based on BSA comparison).

#### *Nonteratogenic effects on fetus*

Oral tretinoin has been shown to be fetotoxic when administered (in doses 24 times the MRHD based on BSA comparison).

Topical tretinoin has been shown to be fetotoxic in rabbits when administered in doses 10 times the MRHD based on BSA comparison.

### **8.3 Nursing Mothers**

It is not known whether tretinoin and/or its metabolites are excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Tretinoin Gel Microsphere is administered to a nursing woman.

### **8.4 Pediatric Use**

Safety and effectiveness in children below the age of 12 have not been established.

### **8.5 Geriatric Use**

Safety and effectiveness in a geriatric population have not been established. Clinical trials of Tretinoin Gel Microsphere, 0.1% and 0.04%, did not include sufficient numbers of subjects aged 65 and over to determine whether they responded differently from younger subjects.

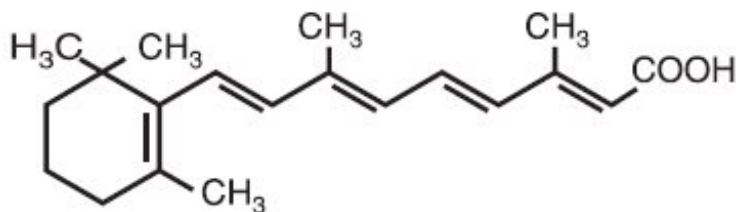
## 10 OVERDOSAGE

Oral ingestion of large amounts of the drug may lead to the same side effects as those associated with excessive oral intake of Vitamin A.

## 11 DESCRIPTION

Tretinoin Gel Microsphere, 0.1% and 0.04% is a white to very pale yellow opaque gel for topical treatment of acne vulgaris.

Chemically, tretinoin is all-trans-retinoic acid, also known as (all-E)-3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraenoic acid. It is a member of the retinoid class of compounds and a metabolite of naturally occurring Vitamin A. Tretinoin has a molecular weight of 300.44, a molecular formula of  $C_{20}H_{28}O_2$  and the following chemical structure:



Each gram of Tretinoin Gel Microsphere, 0.1%, contains 1 mg of tretinoin.  
Each gram of Tretinoin Gel Microsphere, 0.04%, contains 0.4 mg of tretinoin.

The formulation uses methyl methacrylate/glycol dimethacrylate crosspolymer porous microspheres (MICROSPONGE<sup>®</sup> System) to enable inclusion of the active ingredient, tretinoin, in an aqueous gel. Other components consist of benzyl alcohol, butylated hydroxytoluene, carbomer 974P, cyclomethicone and dimethicone copolyol, disodium EDTA, glycerin, PPG-20 methyl glucose ether distearate, propylene glycol, purified water, sorbic acid, and trolamine.

## 12 CLINICAL PHARMACOLOGY

### 12.1 Mechanism of Action

Although tretinoin activates three members of the retinoic acid (RAR) nuclear receptors (RAR $\alpha$ , RAR $\beta$ , and RAR $\gamma$ ) which may act to modify gene expression, subsequent protein synthesis, and epithelial cell growth and differentiation, it has not been established whether the clinical effects of tretinoin are mediated through activation of retinoic acid receptors and/or other mechanisms.

The exact mode of action of tretinoin is unknown. Current evidence suggests that topical tretinoin decreases cohesiveness of follicular epithelial cells with decreased microcomedone formation. Additionally, tretinoin stimulates mitotic activity and increased turnover of follicular epithelial cells causing extrusion of the comedones.

### **12.3 Pharmacokinetics**

Tretinoin is a metabolite of Vitamin A metabolism in man. Percutaneous absorption, as determined by the cumulative excretion of radiolabeled drug into urine and feces, was assessed in 44 healthy men and women after single and repeated daily applications of 500 mg of a 0.1% tretinoin gel formulation. Estimates of in vivo bioavailability, mean (SD)%, following both single and multiple daily applications, for a period of 28 days with the 0.1% gel, were 0.82 (0.11)% and 1.41 (0.54)%, respectively. The plasma concentrations of tretinoin and its metabolites, 13-*cis*-retinoic acid, all-*trans*-4-oxo-retinoic acid, and 13-*cis*-4-oxo-retinoic acid, generally ranged from 1 to 3 ng/mL and were essentially unaltered after either single or multiple daily applications of Tretinoin Gel Microsphere, 0.1%, relative to baseline levels. Clinical pharmacokinetic studies have not been performed with Tretinoin Gel Microsphere, 0.04%.

## **13 NONCLINICAL TOXICOLOGY**

### **13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility**

Dermal carcinogenicity testing has not been performed with Tretinoin Gel Microsphere, 0.1% or 0.04%.

In a 91-week dermal study in which CD-1 mice were administered 0.017% and 0.035% formulations of tretinoin, cutaneous squamous cell carcinomas and papillomas in the treatment area were observed in some female mice. These concentrations are near the tretinoin concentration of the 0.04% and 0.1% clinical formulations. A dose-related incidence of liver tumors in male mice was observed at those same doses. The maximum systemic doses associated with the administered 0.017% and 0.035% formulations are 0.5 and 1.0 mg/kg/day tretinoin, respectively. These doses are two and four times the MRHD based on BSA comparison.

The biological significance of these findings is not clear because they occurred at doses that exceeded the dermal maximally tolerated dose of tretinoin and because they were within the background natural occurrence rate for these tumors in this strain of mice.

There was no evidence of carcinogenic potential when 0.025 mg/kg/day of tretinoin was administered topically to mice (0.1 times the MRHD based on BSA comparison). Studies in hairless albino mice suggest that concurrent exposure to tretinoin may enhance the tumorigenic potential of carcinogenic doses of UVB and UVA light from a solar simulator. This effect has been confirmed in a later study in pigmented mice, and dark pigmentation did not overcome the enhancement of photocarcinogenesis by 0.05% tretinoin. Although the significance of these studies to humans is not clear, patients should minimize exposure to sunlight or artificial ultraviolet irradiation sources [see *Warnings and Precautions (5.2)*].

The genotoxic potential of tretinoin was evaluated in the Ames assay and in the in vivo mouse micronucleus assay, both of which were negative.



The components of the microspheres have shown potential for genetic toxicity and fetal malformation. EGDMA, a component of the excipient acrylates copolymer, was positive for induction of structural chromosomal aberrations in the in vitro chromosomal aberration assay in mammalian cells in the absence of metabolic activation, and negative for genetic toxicity in the Ames assay, and the in vivo mouse micronucleus assay.

In oral fertility studies in rats with tretinoin, the no-observable effect level was 2 mg/kg/day (19 times the MRHD based on BSA comparison).

## 14 CLINICAL STUDIES

### 14.1 Tretinoin Gel Microsphere, 0.1%

In two vehicle-controlled trials, Tretinoin Gel Microsphere, 0.1%, applied once daily was significantly more effective than vehicle in reducing the acne lesion counts. The mean reductions in lesion counts from baseline after treatment for 12 weeks are shown in the following table:

**Table 1: Mean Percent Reduction in Lesion Counts Tretinoin Gel Microsphere, 0.1%**

	Tretinoin Gel Microsphere 0.1%		Vehicle Gel	
	Study #1 72 pts	Study #2 71 pts	Study #1 72 pts	Study #2 67 pts
Non-inflammatory lesion counts	49%	32%	22%	3%
Inflammatory lesion counts	37%	29%	18%	24%
Total lesion counts	45%	32%	23%	16%

Tretinoin Gel Microsphere, 0.1%, was also significantly superior to the vehicle in the investigator's global evaluation of the clinical response. In Study #1, thirty-five percent (35%) of subjects using Tretinoin Gel Microsphere, 0.1%, achieved an excellent result, as compared to eleven percent (11%) of subjects on the vehicle control. In Study #2, twenty-eight percent (28%) of patients using Tretinoin Gel Microsphere, 0.1%, achieved an excellent result, as compared to nine percent (9%) of the subjects on the vehicle control.

### 14.2 Tretinoin Gel Microsphere, 0.04%

In two vehicle-controlled clinical trials, Tretinoin Gel Microsphere, 0.04%, applied once daily, was more effective ( $p < 0.05$ ) than vehicle in reducing the acne lesion counts. The mean reductions in lesion counts from baseline after treatment for 12 weeks are shown in the following table:

**Table 2: Mean Percent Reduction in Lesion Counts Tretinoin Gel Microsphere,**

## 0.04%

	Tretinoin Gel Microsphere 0.04%		Vehicle Gel	
	Study #3 108 pts	Study #4 111 pts	Study #3 110 pts	Study #4 103 pts
Non-inflammatory lesion counts	37%	29%	-2%*	14%
Inflammatory lesion counts	44%	41%	13%	30%
Total lesion counts	40%	35%	8%	20%

\* - That is, a mean percent increase of 2%

Tretinoin Gel Microsphere, 0.04%, was also superior ( $p < 0.05$ ) to the vehicle in the investigator's global evaluation of the clinical response. In Study #3, fourteen percent (14%) of subjects using Tretinoin Gel Microsphere, 0.04%, achieved an excellent result compared to five percent (5%) of subjects on vehicle control. In Study #4, nineteen percent (19%) of subjects using Tretinoin Gel Microsphere, 0.04%, achieved an excellent result compared to nine percent (9%) of subjects on vehicle control.

## 16 HOW SUPPLIED/STORAGE AND HANDLING

### 16.1 How Supplied

Tretinoin Gel Microsphere is opaque and white to very pale yellow in color.

Tretinoin Gel Microsphere, 0.1%, is supplied in 20 gram tube (NDC 68682-513-82),

45 gram tube (NDC 68682-513-84) and

50 gram pump (NDC 68682-513-85).

Tretinoin Gel Microsphere, 0.04%, is supplied in 20 gram tube (NDC 68682-514-92),

45 gram tube (NDC 68682-514-94) and

50 gram pump (NDC 68682-514-95).

### 16.2 Storage Conditions

Store at 20° to 25°C (68° to 77°F); excursions permitted from 15° to 30°C (59° to 86°F) [see USP Controlled Room Temperature].

Store pump upright.

Keep out of reach of children.

## 17 PATIENT COUNSELING INFORMATION

Advise the patient to read the FDA-approved patient labeling (Patient Information).

The patient should be instructed to:

Cleanse the treatment area thoroughly, before treatment, with a mild, non-medicated cleanser. Do not use more than the recommended amount and do not apply Tretinoin Gel Microsphere more than once daily as this will not produce faster or better results, but may increase irritation.

Minimize exposure to sunlight, including sunlamps. Recommend the use of sunscreen products and protective apparel (e.g., hat) when exposure cannot be avoided.

**Manufactured for:**

Oceanside Pharmaceuticals, a division of  
Valeant Pharmaceuticals North America LLC  
Bridgewater, NJ 08807 USA

**By:**

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

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**Patient Information**

**Tretinoin Gel Microsphere, 0.1% and 0.04%  
for topical use**

**Important information:** Tretinoin Gel Microsphere is for use on skin only. Do not get Tretinoin Gel Microsphere in your eyes, mouth, vagina or the corners of your nose.

**What is Tretinoin Gel Microsphere?**

Tretinoin Gel Microsphere is a prescription medicine used on the skin (topical) to treat acne. Acne is a condition in which the skin has blackheads, whiteheads, and other pimples.

It is not known if Tretinoin Gel Microsphere is safe and effective in the treatment of other conditions.

It is not known if Tretinoin Gel Microsphere is safe and effective in children under 12 years of age.

**What should I tell my doctor before using Tretinoin Gel Microsphere?**

Before using Tretinoin Gel Microsphere, tell your doctor about all your medical conditions, including if you:

- have a skin condition called eczema.
- have a sunburn. You should not use Tretinoin Gel Microsphere until your skin has healed.

- have any other medical condition.
- are pregnant or plan to become pregnant. It is not known if Tretinoin Gel Microsphere will harm your unborn baby.
- are breastfeeding or plan to breastfeed. It is not known if Tretinoin Gel Microsphere passes into your breast milk.

**Tell your doctor about all of the medicines you take**, including prescription and over-the-counter medicines, vitamins, herbal supplements, and any skin products that you use.

Especially tell your doctor if you use any other medicines to treat your acne, including medicated cleansers or soaps. Using other topical acne products may increase the irritation of your skin when used with Tretinoin Gel Microsphere.

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 Tretinoin Gel Microsphere?**

- Use Tretinoin Gel Microsphere exactly as your doctor tells you to use it.
- Your doctor may change your dose of Tretinoin Gel Microsphere if you have skin irritation.
- Before you apply Tretinoin Gel Microsphere, gently wash the affected skin area with a mild, non-medicated soap. Rinse and pat your skin dry.
- Apply Tretinoin Gel Microsphere 1 time a day in the evening, or as prescribed by your doctor.
- Do not use more Tretinoin Gel Microsphere than you need to cover the affected area and do not apply Tretinoin Gel Microsphere more than 1 time a day. Using too much Tretinoin Gel Microsphere or using it too often will not give you faster or better results, and you may get skin redness, peeling, or discomfort.
- You may have a brief feeling of warmth or slight stinging after applying Tretinoin Gel Microsphere.
- You may use moisturizers and cosmetics.
- Early in your treatment, you may get new pimples. At this stage, it is important to continue using Tretinoin Gel Microsphere.
- Your acne may not get better right away. Use Tretinoin Gel Microsphere even after your acne improves. Your acne may get better after two weeks of treatment, but more than seven weeks of Tretinoin Gel Microsphere treatment are needed before you get the full benefit.

### **Applying Tretinoin Gel Microsphere:**

- Tretinoin Gel Microsphere comes in a tube and a pump. If you have been prescribed the:
  - Tube:** Squeeze the gel from the tube onto a fingertip. Apply a thin layer to cover the affected area, as prescribed by your doctor. Spread Tretinoin Gel Microsphere evenly over the affected area.
  - Pump:** Fully depress the pump twice to dispense Tretinoin Gel Microsphere onto a fingertip. Apply a thin layer to cover the affected area, as prescribed by your doctor. Spread Tretinoin Gel Microsphere evenly over the affected area.
- Wash your hands after applying Tretinoin Gel Microsphere.

### **What should I avoid while using Tretinoin Gel Microsphere?**

- Avoid washing your skin too often and scrubbing the affected skin area.
- You should avoid sunlamps, tanning beds, and ultraviolet light during treatment with Tretinoin Gel Microsphere.
- Minimize exposure to sunlight.
- If you have to be in the sunlight or are sensitive to sunlight, use a sunscreen with SPF (sun protection factor) of 15 or more and wear a wide-brimmed hat or other protective clothing to cover the treated areas.
- If you do get sunburned, stop using Tretinoin Gel Microsphere until your skin has healed and is back to normal.
- Cold weather and wind may irritate skin treated with Tretinoin Gel Microsphere. Talk to your doctor about ways to manage skin irritation.
- Avoid contact with the peels of limes.

## **What are the possible side effects of Tretinoin Gel Microsphere?**

### **Tretinoin Gel Microsphere may cause serious side effects, including:**

**Skin irritation.** Tretinoin Gel Microsphere may cause skin dryness, redness, swelling, and blistering. If you develop these symptoms, your doctor may tell you to stop using Tretinoin Gel Microsphere for a while, change your dose, decrease the number of times you apply Tretinoin Gel Microsphere, or completely stop treatment with Tretinoin Gel Microsphere. It is not known if Tretinoin Gel Microsphere is effective when used less than 1 time a day.

**The most common side effects of Tretinoin Gel Microsphere include** skin burning and itching.

Tell your doctor if you have any side effect that bothers you or that does not go away.

These are not all the possible side effects of Tretinoin Gel Microsphere. For more information, ask your doctor or pharmacist.

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 Tretinoin Gel Microsphere?**

- Store Tretinoin Gel Microsphere at room temperature between 68°F to 77°F (20°C to 25°C).
- Store Tretinoin Gel Microsphere pump upright.

**Keep Tretinoin Gel Microsphere and all medicines out of the reach of children.**

### **General information about the safe and effective use of Tretinoin Gel Microsphere.**

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

If you would like more information, talk with your doctor. You can ask your pharmacist or doctor for information about Tretinoin Gel Microsphere that is written for health professionals.

For more information, call 1-800-321-4576.

## **What are the ingredients of Tretinoin Gel Microsphere?**

**Active ingredient:** tretinoin

**Inactive ingredients:** benzyl alcohol, butylated hydroxytoluene, carbomer 974P, cyclomethicone and dimethicone copolyol, disodium EDTA, glycerin, PPG-20 methyl glucose ether distearate, propylene glycol, purified water, sorbic acid and trolamine

### **Manufactured for:**

Oceanside Pharmaceuticals, a division of Valeant Pharmaceuticals North America LLC  
Bridgewater, NJ 08807 USA

### **By:**

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

Microsponge is a registered trademark of AMCOL International Corporation. Any other product/brand names are trademarks of their respective owners.

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

Rev. 04/2018

9515303

## **Package/Label Display Panel**

**NDC 68682-513-84**

**Rx only**

**TRETINOIN Gel**

**microsphere**

**0.1%**

**For Topical Use Only**

**Net Wt. 45 g**

OCEANSIDE

PHARMACEUTICALS

9515102

20001067C



## Package/Label Display Panel

**NDC 68682-514-95**

**Rx only**

**TRETINOIN  
Gel  
microsphere  
0.04%  
PUMP**

**OCEANSIDE  
PHARMACEUTICALS**

**For Topical Use Only  
Net Wt. 50 g**

9515503  
20001605D



**Rx only**

**Usual Dosage:** See package insert.

**WARNING:** Keep out of reach of children.

Store at 20°C to 25°C (68°F to 77°F); excursions permitted from 15°C to 30°C (59°F to 86°F) [see USP Controlled Room Temperature]. Store pump upright.

**Each gram contains:** Tretinoin 0.04% in methyl methacrylate/glycol dimethacrylate crosspolymer porous microspheres (MICROSPONGE® System), benzyl alcohol, butylated hydroxytoluene, carbomer 974P, cyclomethicone and dimethicone copolyol, disodium EDTA, glycerin, PPG-20 methyl glucose ether distearate, propylene glycol, purified water, sorbic acid, and triethylamine.

Microsponge is a registered trademark of AMCOL International Corporation.

**Manufactured for:**

Oceanside Pharmaceuticals, a division of Valeant Pharmaceuticals North America LLC Bridgewater, NJ 08807 USA

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

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9515503 20001065D

NDC 68682-514-95

Rx only

**TRETINOIN  
Gel  
microspheres  
0.04%  
PUMP**



OCEANSIDE  
PHARMACEUTICALS

**For Topical Use Only  
Net Wt. 50 g**



20001065D

**Package/Label Display Panel**

**NDC 68682-515-85**



**TRETINOIN**  
**Gel**  
**microsphere**

**0.08%**

No Image Available as this product has been delisted.

No image  
available

**TRETINOIN**

tretinoin gel

**Product Information**

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:68682-513
<b>Route of Administration</b>	TOPICAL		

**Active Ingredient/Active Moiety**

<b>Ingredient Name</b>	<b>Basis of Strength</b>	<b>Strength</b>
<b>Tretinoin</b> (UNII: 5688UTC01R) (Tretinoin - UNII:5688UTC01R)	Tretinoin	1 mg in 1 g

**Inactive Ingredients**

<b>Ingredient Name</b>	<b>Strength</b>
<b>WATER</b> (UNII: 059QF0KO0R)	
<b>CARBOMER HOMOPOLYMER TYPE B (ALLYL PENTAERYTHRITOL CROSSLINKED)</b> (UNII: HHT01Z NK31)	
<b>GLYCERIN</b> (UNII: PDC6A3C0OX)	
<b>EDETATE DISODIUM</b> (UNII: 7FLD91C86K)	
<b>PROPYLENE GLYCOL</b> (UNII: 6DC9Q167V3)	
<b>SORBIC ACID</b> (UNII: X045WJ989B)	
<b>PPG-20 METHYL GLUCOSE ETHER DISTEARATE</b> (UNII: 0057334FAB)	
<b>CYCLOMETHICONE</b> (UNII: NMQ347994Z)	
<b>BENZYL ALCOHOL</b> (UNII: LKG8494WBH)	
<b>TROLAMINE</b> (UNII: 903K93S3TK)	
<b>BUTYLATED HYDROXYTOLUENE</b> (UNII: 1P9D0Z171K)	

## Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:68682-513-82	1 in 1 CARTON	03/14/2013	
1		20 g in 1 TUBE; Type 0: Not a Combination Product		
2	NDC:68682-513-84	1 in 1 CARTON	03/14/2013	
2		45 g in 1 TUBE; Type 0: Not a Combination Product		
3	NDC:68682-513-85	1 in 1 CARTON	03/14/2013	
3		50 g in 1 BOTTLE, PUMP; Type 0: Not a Combination Product		

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA authorized generic	NDA020475	03/14/2013	

## TRETINOIN

tretinoin gel

### Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:68682-515
Route of Administration	TOPICAL		

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
Tretinoin (UNII: 5688UTC01R) (Tretinoin - UNII:5688UTC01R)	Tretinoin	0.8 mg in 1 g

### Inactive Ingredients

Ingredient Name	Strength
WATER (UNII: 059QF0KO0R)	
CARBOMER HOMOPOLYMER TYPE B (ALLYL PENTAERYTHRITOL CROSSLINKED) (UNII: HHT01ZNK31)	
GLYCERIN (UNII: PDC6A3C0OX)	
EDETATE DISODIUM (UNII: 7FLD91C86K)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SORBIC ACID (UNII: X045WJ989B)	
PPG-20 METHYL GLUCOSE ETHER DISTEARATE (UNII: 0057334FAB)	
CYCLOMETHICONE (UNII: NMQ347994Z)	
BENZYL ALCOHOL (UNII: LKG8494WBH)	

**TROLAMINE** (UNII: 9O3K93S3TK)

**BUTYLATED HYDROXYTOLUENE** (UNII: 1P9D0Z171K)

## Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:68682-515-95	1 in 1 CARTON	03/14/2013	10/31/2018
1		50 g in 1 BOTTLE, PUMP; Type 0: Not a Combination Product		

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA authorized generic	NDA020475	03/14/2013	10/31/2018

## TRETINOIN

tretinoin gel

### Product Information

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:68682-514
<b>Route of Administration</b>	TOPICAL		

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
<b>Tretinoin</b> (UNII: 5688UTC01R) (Tretinoin - UNII:5688UTC01R)	Tretinoin	0.4 mg in 1 g

### Inactive Ingredients

Ingredient Name	Strength
<b>WATER</b> (UNII: 059QF0KO0R)	
<b>CARBOMER HOMOPOLYMER TYPE B (ALLYL PENTAERYTHRITOL CROSSLINKED)</b> (UNII: HHT01Z NK31)	
<b>GLYCERIN</b> (UNII: PDC6A3C0OX)	
<b>EDETATE DISODIUM</b> (UNII: 7FLD91C86K)	
<b>PROPYLENE GLYCOL</b> (UNII: 6DC9Q167V3)	
<b>SORBIC ACID</b> (UNII: X045WJ989B)	
<b>PPG-20 METHYL GLUCOSE ETHER DISTEARATE</b> (UNII: 0057334FAB)	
<b>CYCLOMETHICONE</b> (UNII: NMQ347994Z)	
<b>BENZYL ALCOHOL</b> (UNII: LKG8494WBH)	
<b>TROLAMINE</b> (UNII: 9O3K93S3TK)	
<b>BUTYLATED HYDROXYTOLUENE</b> (UNII: 1P9D0Z171K)	

## Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:68682-514-92	1 in 1 CARTON	03/14/2013	
1		20 g in 1 TUBE; Type 0: Not a Combination Product		
2	NDC:68682-514-94	1 in 1 CARTON	03/14/2013	
2		45 g in 1 TUBE; Type 0: Not a Combination Product		
3	NDC:68682-514-95	1 in 1 CARTON	03/14/2013	
3		50 g in 1 BOTTLE, PUMP; Type 0: Not a Combination Product		

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA authorized generic	NDA020475	03/14/2013	

**Labeler** - Oceanside Pharmaceuticals (832011691)

## Establishment

Name	Address	ID/FEI	Business Operations
Bausch Health Companies Inc.		245141858	MANUFACTURE(68682-513, 68682-514)

Revised: 4/2018

Oceanside Pharmaceuticals