Delefilcon A Soft Contact Lenses
510(k) Summary of Safety and Substantial Equivalence

510(k) Summary - K113168

1. Submitter Information:

Company: CIBA VISION Corporation
11460 Johns Creek Parkway
Duluth, Georgia USA 30097

Contact Person: Alicia M. Plesnarski, RAC
Director, Regulatory Affairs

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Date Prepared: 27-Mar-2012

2. Device Name:

• Common Name: Soft Contact Lens
• Trade/Proprietary Name: DAILIES TOTAL1® (delefilcon A)
• Classification Name: Daily Wear Soft Contact Lens
• Device Classification: Class II [21 CFR 886.5925 (b) (1)]

3. Predicate Device:

The predicate device is Johnson & Johnson VISTAKON® 1-DAY ACUVUE® TruEye (narafilcon B) soft contact lenses packaged in buffered saline. Narafilcon B lenses belong to ISO Group V (silicone hydrogel). Johnson & Johnson VISTAKON 1-DAY ACUVUE TruEye lenses have FDA 510(k) clearance per K100349, 21-May-2010.

4. Description of Device:

The lens material is 33% water and 67% delefilcon A, a silicone containing hydrogel with added phosphatidylcholine. The core lens material containing 33% water transitions through a water gradient to a hydrogel surface layer that exceeds 80% water. Lenses contain the color additive copper phthalocyanine, a light blue handling tint, which makes them easier to see when handling.

Delefilcon A lens designs include spherical, toric, multifocal and toric multifocal lenses in the following parameter ranges:

• Diameter Range: 13.0 to 15.0 mm
• Base Curve Range: 8.0 to 9.2 mm
• Power Range: -20.00D to +20.00D
• Center Thickness: varies with design and power
  (0.09 mm for -3.00D spherical)
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Lenses have the following properties:

- Refractive index: 1.42 (hydrated)
- Light transmittance: $\geq 93\%$ (@610 nm, -1.00D)
- Water content: 33% by weight in normal saline
- Surface water content: $\geq 80\%$
- Oxygen permeability $140 \times 10^{-11}$
  \[ \text{[cm}^2/\text{sec}(\text{ml} \text{O}_2/\text{ml} \cdot \text{mmHg})] \]
  measured at 35°C (intrinsic Dk-Coulometric method)

Each lens is packaged in a foil-sealed plastic container containing phosphate buffered saline solution with approximately 0.3% of polymeric wetting agents consisting of copolymers of polyamidoamine and poly(acrylamide-acrylic acid) and are steam sterilized. The compatibility and package integrity of the blister pack packaging system has been demonstrated and successfully used for other marketed contact lens products, and packaged lenses are effectively steam sterilized in a validated autoclave. Blister pack containers are labeled with the lens parameters, lot number and product expiration date. The expiration date has been established through stability studies that have assessed the chemical and physical stability of the lens and integrity of the package (ability to maintain sterility). Shelf-life studies are ongoing to establish and extend the labeled expiration date.

5. Indications for Use:

DAILIES TOTAL1® (delefilcon A) spherical soft contact lenses are indicated for the optical correction of refractive ametropia (myopia and hyperopia) in phakic or aphakic persons with non-diseased eyes with up to approximately 1.50 diopters of astigmatism.

DAILIES TOTAL1® for Astigmatism (delefilcon A) soft contact lenses are indicated for the optical correction of refractive ametropia (myopia and hyperopia) in phakic or aphakic persons with non-diseased eyes with 6.00 diopters (D) or less of astigmatism.

DAILIES TOTAL1® Multifocal (delefilcon A) soft contact lenses are indicated for the optical correction of refractive ametropia (myopia and hyperopia) and/or presbyopia in phakic or aphakic persons with non-diseased eyes who may require a reading addition of +3.00 diopters (D) or less and who may have up to approximately 1.50 diopters of astigmatism.

DAILIES TOTAL1® Multifocal Toric (delefilcon A) soft contact lenses are indicated for the optical correction of refractive ametropia (myopia, hyperopia, astigmatism and presbyopia) in phakic or aphakic persons with non-diseased eyes. The lenses may be worn by persons who have 6.00 diopters (D) or less of astigmatism and who may require a reading addition of +3.00 diopters (D) or less.

The lenses are to be prescribed for single use, daily disposable wear. The lenses are not intended to be cleaned or disinfected and should be discarded after a single use.
6. Description of Safety and Substantial Equivalence:

A series of non-clinical tests were performed to characterize lens material properties and establish substantial equivalence to the predicate device. All testing was conducted in accordance with the May 1994 FDA guidance document titled Premarket Notification 510(k) Guidance Document for Daily Wear Contact Lenses and in conformance to applicable device regulations. Results verify that delefilcon A contact lenses are non-toxic and biocompatible, have material characteristics in common with currently marketed soft contact lenses intended for vision correction and demonstrate substantial equivalence to the previously FDA cleared predicate (control) lenses listed in Table 1.

Table 1. Substantial Equivalence Comparison

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Predicate Device</th>
<th>New Device</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Johnson &amp; Johnson® VISTAKON® 1-DAY ACUVUE® TruEye™ (narafilcon B)</td>
<td>CIBA VISION® DAILIES TOTAL1® (delefilcon A)</td>
</tr>
<tr>
<td>Intended Use</td>
<td>Daily Disposable Wear</td>
<td>Daily Disposable Wear</td>
</tr>
<tr>
<td>Mode of Action</td>
<td>When hydrated and placed on the cornea, lenses act as a refracting medium to focus light rays on the retina.</td>
<td>When hydrated and placed on the cornea, lenses act as a refracting medium to focus light rays on the retina.</td>
</tr>
<tr>
<td>510(k) Number</td>
<td>K100349</td>
<td>To be assigned</td>
</tr>
<tr>
<td>Lens Material Group**</td>
<td>ISO Group V</td>
<td>ISO Group V</td>
</tr>
<tr>
<td>Manufacturing Method</td>
<td>Molded</td>
<td>LightStream</td>
</tr>
<tr>
<td>Sterilization Method</td>
<td>Moist Heat</td>
<td>Moist Heat</td>
</tr>
<tr>
<td>Packaging</td>
<td>Blister Pack</td>
<td>Blister Pack</td>
</tr>
<tr>
<td>Handling Tint</td>
<td>Lt. Blue</td>
<td>Lt. Blue</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>1.41</td>
<td>1.42</td>
</tr>
<tr>
<td>Water Content (%)</td>
<td>48</td>
<td>33</td>
</tr>
<tr>
<td>Oxygen permeability</td>
<td>55</td>
<td>140</td>
</tr>
<tr>
<td>BC/Diameter (mm)</td>
<td>8.5/14.2</td>
<td>8.5/14.1</td>
</tr>
<tr>
<td>Power (D)</td>
<td>various</td>
<td>various</td>
</tr>
</tbody>
</table>

**Per EN ISO 18369-1/Amd.1:2009
Conclusions drawn from Studies

Nonclinical Testing:
A series of nonclinical testing was performed to verify substantial equivalence of delefilcon A contact lenses to the predicate device. Non-clinical biocompatibility testing was conducted in accordance with the GLP regulation (21 CFR Part 58). The results of all non-clinical testing demonstrate:

- The lens material and extracts of the device are non toxic and non-irritating.
- The device has optical, dimensional and physico-chemical properties in common with currently marketed soft contact lenses intended for vision correction and consistent with or better than, the predicate lenses tested.
- The lenses are compatible with commonly available contact lens rewetting drops and saline solutions.

Clinical Testing:
A three-month clinical study was conducted to assess the safety and efficacy of DAILIES TOTAL1® (delefilcon A) soft contact lenses for single use, daily disposable wear. The clinical study also provided data to establish substantial equivalence with the predicate, control lens.

The study evaluated 60 delefilcon A (test) subjects in a 2:1 ratio with the 30 narafilcon B (control) subjects in a prospective, randomized, parallel group design. The primary safety and efficacy variables were biomicroscopy findings and visual acuity respectively. Additional variables tested include refraction, keratometry, and subjective ratings of vision, comfort and handling.

The study results showed similar performance between the test delefilcon A and control narafilcon B lenses in the clinically relevant areas of fit, vision, comfort, health and handling when worn on a daily disposable wear basis.

Risks and Benefits:
The risks of the subject device are the same as those normally attributed to the wearing of silicone hydrogel contact lenses on a single use, daily wear basis. The benefits to the patient are the same as those for other silicone hydrogel contact lenses.

Substantial Equivalence:
Delefilcon A soft contact lenses are substantially equivalent to the predicate contact lens and similar to other daily wear soft contact lenses in terms of material water content (33% water), ionic characteristics, ISO Group V: silicone hydrogel and indications for use.

Any differences which may exist between the delefilcon A soft contact lens and other ISO Group V silicone hydrogel soft contact lenses do not adversely affect the safety and effectiveness of the device when worn under single use, daily wear conditions.
Ciba Vision Corporation  
c/o Ms. Alicia M. Plesnarski, RAC  
Director, Regulatory Affairs  
11460 Johns Creek Parkway  
Duluth, GA 30097

Re: K113168  
Trade/Device Name: DAILIES TOTAL1® (delefilcon A) Soft Contact Lenses for Daily Disposable Wear  
Regulation Number: 21 CFR 886.5925  
Regulation Name: Soft (hydrophilic) Contact Lens  
Regulatory Class: Class II  
Product Codes: LPL, MVN  
Dated: March 21, 2012  
Received: March 22, 2012

Dear Ms. Plesnarski:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Kesia Alexander
Malvina B. Eydelman, M.D.
Director
Division of Ophthalmic, Neurological, and Ear, Nose and Throat Devices
Office of Device Evaluation
Center for Devices and Radiological Health

Enclosure
Indications for Use

510(k) Number (if known):  K113168

Device Name:  DAILIES TOTAL1® (deleficon A) Soft Contact Lenses

Indications For Use:

DAILIES TOTAL1® (deleficon A) spherical soft contact lenses are indicated for the optical correction of refractive ametropia (myopia and hyperopia) in phakic or aphakic persons with non-diseased eyes with up to approximately 1.50 diopters (D) of astigmatism.

DAILIES TOTAL1® (deleficon A) toric soft contact lenses are indicated for the optical correction of refractive ametropia (myopia and hyperopia) in phakic or aphakic persons with non-diseased eyes with 6.00 diopters (D) or less of astigmatism.

DAILIES TOTAL1® (deleficon A) multifocal soft contact lenses are indicated for the optical correction of refractive ametropia (myopia and hyperopia) and/or presbyopia in phakic or aphakic persons with non-diseased eyes who may require a reading addition of +3.00 diopters (D) or less and who may have up to approximately 1.50 diopters of astigmatism.

DAILIES TOTAL1® (deleficon A) multifocal toric soft contact lenses are indicated for the optical correction of refractive ametropia (myopia, hyperopia, astigmatism and presbyopia) in phakic or aphakic persons with non-diseased eyes. The lenses may be worn by persons who have 6.00 diopters (D) or less of astigmatism and who may require a reading addition of +3.00 diopters (D) or less.

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Prescription Use:  X AND/OR  Over-The-Counter Use
(Part 21 CFR 801 Subpart D)  (21 CFR 801 Subpart C)

(Please do not write below this line. Continue on another page if needed)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Mare Ro 6604
(Division Sign-Off)
Division of Ophthalmic, Neurological and Ear, Nose and Throat Devices

510(k) Number  K113168