K980704

VII. 510(k) Summary

In accordance with the Safe Medical Devices Act (SMDA) of 1990 and Title 21 of the Code of Federal Regulations Part 807 (21 CFR §807), and in particular §807.92, the following summary of safety and effectiveness information is provided:

A. Submitted By

Aesculap®
1000 Gateway Boulevard
South San Francisco, California 94080-7030
Telephone: (415) 876-7000
Contact: Victoria MacKinnon, Manager of Regulatory Affairs
Date Prepared: February 19, 1998

B. Device Name

Trade or Proprietary Name:	*Safil*® Synthetic Absorbable Surgical Suture
Common or Usual Name:	Absorbable Poly(Glycolide/L-lactide) Surgical Suture
Classification Name:	Absorbable Poly(Glycolide/L-lactide) Surgical Suture

C. Predicate Devices

The subject device is substantially equivalent to the following predicate devices:

- DEXON® Synthetic Absorbable Surgical Suture (Davis & Geck))
- VICRYL® Synthetic Absorbable Surgical Suture (Ethicon, Inc.)
- POLYSORB® Synthetic Absorbable Surgical Suture (U. S. Surgical Corp.)

D. Device Description

The subject device is an absorbable, flexible multifilament or monofilament suture thread which is supplied sterile. It is composed of synthetic polyglycolic acid polymer, and is indicated for soft tissue approximation and/or ligation. It will be

offered undyed, and dyed with the FDA approved colorant D&C Green No. 6 in accordance with Title 21 CFR, §74.3206. It will be available uncoated, and coated with an absorbable magnesium stearate-based coating. It will be available with and without standard needles attached.

E. Intended Use

Safil® Synthetic Absorbable Surgical Sutures are indicated for use in all types of general soft tissue approximation and ligation, including use in ophthalmic surgery, but not in cardiovascular surgery, microsurgery or in neural tissue.

F. Comparison to Predicate Devices

The subject *Safil*® Synthetic Absorbable Surgical Suture is composed of 100% polyglycolic acid, a material identical to that comprising the predicate DEXON® suture, and equivalent to the material comprising the predicate POLYSORB® and VICRYL® devices. Further, the subject device is offered undyed, and dyed with the same colorant as the DEXON® predicate device, that being D&C Green No. 6 at a concentration that conforms to the requirements of Title 21 CFR, §74.3206.

The subject device has the same design as do the DEXON®, POLYSORB® and VICRYL® predicate devices, being a sterile, flexible thread available in a braided multifilament form in sizes 8-0 and larger, and a monofilament form in sizes 9-0 and smaller. Braided multifilament sutures are offered either uncoated, or treated with an absorbable magnesium stearate-based coating to enhance handling characteristics and reduce tissue drag. It is offered in a variety of lengths and a range of diameters conforming with the requirements of U. S. Pharmacopeia (U.S.P.) XXIII, and is offered with or without one of a selection of standard needles attached. Further, as is the case with the predicate devices, the subject device conforms in all respects to the requirements of the Official Monograph for Absorbable Surgical Suture in U.S.P. XXIII, including <861> *Sutures -- Diameter*, <871> *Sutures -- Needle Attachment*, and <881> *Tensile Strength*.

Physical properties of the subject device are substantially equivalent to those of the DEXON®, POLYSORB® and VICRYL® predicate devices, including fiber

diameter, knot pull tensile strength, straight pull tensile strength, elongation at break, knot security, and needle attachment strength, among others.

The subject device is manufactured in a manner typical of the industry and equivalent to that used to produce predicate devices, wherein: Polyglycolic acid polymer is synthesized via condensation reaction; the polymer is melt extruded and spun to form fine filaments of specified diameter and are then drawn to enhance tensile properties; the fibers are either cut to length and attached to needles to make monofilament sutures, or braided to produce multifilament suture fiber, coated, and then cut to length and attached to needles. Given that the subject device is made from the same material as the DEXON® predicate device, and in the same manner as the DEXON®, POLYSORB® and VICRYL® predicate devices, the subject device has the same or equivalent chemical characteristics, biocompatibility, and/or *in vivo* performance properties as do the predicate devices.

The subject device is packaged and sterilized in the same or equivalent manner, and has the same or equivalent labeling claims as do the predicate devices, including indications, contraindications, warnings, cautions and precautions.

G. Summary of Non-Clinical Tests

Non-clinical testing conducted on the subject device to demonstrate its substantial equivalence to predicate devices included physical testing for all parameters identified above, sterilization validation and evaluation of sterilant residues, and shelf-life testing. Testing conducted by the manufacturer included Fourier Transform Infrared Spectroscopy assays to demonstrate substantial equivalence of identity and purity, testing of physical properties to prove conformance to the requirements of U.S.P., *in vitro* and *in vivo* biosafety studies, and implant studies in animals to demonstrate rates of tensile strength and mass loss.

H. Summary of Clinical Tests

(Not applicable)

I. Conclusions of Non-Clinical and Clinical Tests

The results of all testing demonstrated the substantial equivalence, if not superiority, of the subject device to one or more predicate devices.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

MAY 1 1 1998

Mr. Steve Reitzler
Vice President, Regulatory Affairs
AESCULAP
c/o Advanced Bioresearch Associates
One America Plaza, Suite 900
600 West Broadway
San Diego, California 92101-3302

Re: K980704
Safil Synthetic Absorbable Surgical Suture
Regulatory Class II
Product Code: GAM
Dated: February 19, 1998
Received: February 23, 1998

Dear Mr. Reitzler:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices that were regulated as transitional devices and that have been reclassified into class II. Notice of this reclassification was published in the Federal Register on Friday, May 31, 1991 (Vol. 56, No. 105, Pages 24684 and 24685). A copy of this Federal Register can be obtained by calling the Division of Small Manufacturers Assistance (DSMA) at (800) 638-2041 or (301) 443-6597. You may, therefore, market the device, subject to the general controls provisions of the Federal Food, Drug, and Cosmetic Act (Act) and the following limitations:

1. The Safil Synthetic Absorbable Surgical Suture is indicated for use in general soft tissue approximation and/or ligation, including use in ophthalmic surgery but not in cardiovascular surgery, neurological procedures and microsurgery.

2. This device may not be manufactured from any material other than homopolymers of glycolic acid. In addition, you must maintain documentation at your premises regarding vendor certification for raw or semiprocessed source material, all manufacturing and quality control release procedures, and validation of sterilization procedures used in the manufacture of the Safil Absorbable Synthetic Surgical Suture. Any deviation of the source material or processing as described in this 510(k) notification requires submission of a new premarket notification and Food and Drug Administration (FDA) clearance prior to commercial distribution of the

The sale, distribution and use of this device are restricted to prescription use in accordance with 21 CFR 801.109.

The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practices, labeling, and prohibition against misbranding and adulteration.

Existing major regulations affecting your device can be found in the Code of Federal Regulations (CFR), Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Good Manufacturing Practices (GMP) for Medical Devices: General GMP regulation (21 CFR Part 820) and that, through periodic GMP inspections, The Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control Provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4595. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "http://www.fda.gov/cdrh/dsmamain.html".

Sincerely yours,

Celia M. Witten, Ph.D., M.D.
Director
Division of General and
Restorative Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

510(k) Number (if known): K980704

Device Name: *Safil*® Synthetic Absorbable Surgical Suture

Indications For Use:

Safil® sutures are indicated for use in all types of general soft tissue approximation and/or ligation, including use in ophthalmic surgery, but not in cardiovascular surgery, microsurgery or neural tissue.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)
Division of General Restorative Devices
510(k) Number K980704

Prescription Use X
(Per 21 CFR 801.109)

OR

Over-The-Counter Use _____

(Optional Format 1-2-96)