



Food and Drug Administration  
10903 New Hampshire Avenue  
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Silver Spring, MD 20993-0002

September 26, 2014

Orthocon Incorporated  
Mr. Howard Schrayer  
Regulatory Affairs Consultant  
1 Bridge Street, Suite 121  
Irvington, New York 10533

Re: K142339

Trade/Device Name: HEMASORB<sup>press</sup>™ Resorbable Hemostatic Bone Putty  
Regulatory Class: Unclassified  
Product Code: MTJ  
Dated: September 12, 2014  
Received: September 15, 2014

Dear Mr. Schrayer:

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 contact the Division of Industry and Consumer Education 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>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR 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 Industry and Consumer Education 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,

**David Krause -S**

for Binita S. Ashar, M.D., M.B.A., F.A.C.S.  
Director  
Division of Surgical Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

### Indications for Use

510(k) Number (if known)

Device Name

Orthocon HEMASORBpress Resorbable Hemostatic Bone Putty

Indications for Use (Describe)

Orthocon HEMASORBpress Resorbable Hemostatic Bone Putty is indicated for use in the control of bleeding from cut or damaged bone by acting as a mechanical barrier or tamponade. The material may be used during surgical procedures and in treating traumatic injuries. HEMASORBpress Resorbable Hemostatic Bone Putty is also indicated for use in the control of bleeding from bone surfaces in cardiothoracic surgery following sternotomy.

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

**CONTINUE ON A SEPARATE PAGE IF NEEDED.**

This section applies only to requirements of the Paperwork Reduction Act of 1995.

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**510(k) SUMMARY  
(Per 21 CFR 807.92)**

**General Company Information**

Name: Orthocon, Inc.  
Contact: Howard Schrayer  
Regulatory Affairs Consultant

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Irvington, NY 10533

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**Date Prepared** September 19, 2014

**General Device Information**

Product Name: HEMASORB<sup>press</sup><sup>TM</sup> Resorbable Hemostatic Bone Putty

Classification: "Bone Wax", Product code: MTJ  
Regulation: Unclassified

**Predicate Devices**

Orthocon, Inc. - HEMASORB<sup>®</sup> Resorbable Hemostatic Bone Putty  
510(k) Numbers K043260 and K111575

Orthocon, Inc. - AHBP<sup>press</sup><sup>TM</sup> Absorbable Hemostatic Bone Putty  
[510(k) Number K140117]

**Description**

Orthocon HEMASORB<sup>press</sup><sup>TM</sup> Resorbable Hemostatic Bone Putty is a sterile, soft, moldable, biocompatible, resorbable material of putty-like consistency intended for use in the management of bleeding from the cut surface of bone. The material is a mixture of calcium stearate (a wax-like tamponade), Vitamin E Acetate (for handling properties) and an alkylene oxide copolymer (a dispersing agent). The material is virtually odorless, off-white in color and can be spread easily with minimal adhesion to surgical gloves. The bone putty requires no kneading prior to application and does not soften appreciably at body temperature.

When applied manually to surgically incised or traumatically broken bone, Hemasorb Resorbable Hemostatic Bone Putty achieves local control of bleeding by acting as a mechanical barrier (tamponade). The bone putty will be dispersed and resorbed within a period of 30 days.

## **Intended Use (Indications)**

Orthocon HEMASORB<sub>press</sub> Resorbable Hemostatic Bone Putty is indicated for use in the control of bleeding from cut or damaged bone by acting as a mechanical barrier or tamponade. The material may be used during surgical procedures and in treating traumatic injuries. HEMASORB<sub>press</sub> Resorbable Hemostatic Bone Putty is also indicated for use in the control of bleeding from bone surfaces in cardiothoracic surgery following sternotomy.

## **Purpose of Submission**

Orthocon intends to produce an alternate packaged configuration (strip) of its hemostatic bone putty as a product line extension to HEMASORB Resorbable Hemostatic Bone Putty.

## **Substantial Equivalence**

This submission supports the position that the Orthocon HEMASORB<sub>press</sub> Resorbable Hemostatic Bone Putty is substantially equivalent to a number of pre-enactment and previously cleared devices, and is exactly the same as the predicate Orthocon HEMASORB Resorbable Hemostatic Bone Putty [cleared under 510(k) K043260 and K111575] with the exception of the shape and packaging configuration (i.e., a thin strip sandwiched between two layers of polypropylene mesh versus a cylindrical shape without a polypropylene mesh). The secondary predicate K140117 is a bone wax device that is packaged in the same strip configuration using the same packaging materials (including the polypropylene mesh) as this alternate configuration (HEMASORB<sub>press</sub>) of the device.

## **Testing Completed on Original Configuration**

The following testing was completed on the original (predicate) device and is referenced in the 510(k) Notice because the device formulation is unchanged;

### Performance Data

Testing was conducted to verify the device's handling properties, to characterize the device's performance over a range of temperatures and to evaluate the device's dissolution and swelling properties. The following bench studies were completed: smearability stickiness, stiffness, temperature sensitivity, and dissolution and swelling.

### Biocompatibility Testing

Testing was conducted to evaluate the device's biocompatibility in accordance with the recommendations of ISO 10993. The following biocompatibility studies were conducted on the final, finished, gamma-irradiation sterilized device and in accordance with the GLP requirements: cytotoxicity, irritation, sensitization, acute systemic toxicity, genotoxicity, implantation / subacute toxicity, hemolysis, and pyrogenicity

### In Vivo Performance Testing

Testing included animal studies to demonstrate intraoperative *in vivo* hemostasis, resistance to irrigation, ability to remove the device, and to characterize its safety and absorption time.

### **Testing Completed on Strip Configuration**

In accordance with design control procedures, Orthocon, Inc. performed a risk analysis for the proposed modifications based on an FMEA approach. Based on the results of the risk analysis, the following verification and validation activities were performed: cytotoxicity testing of the polypropylene mesh, USP and rabbit pyrogen testing, usability testing to verify the device's handling properties, testing to evaluate product interface with the mesh, and package stability testing.

### **Conclusions**

Orthocon, Inc. believes that the information provided establishes that similar legally marketed devices have been used for the same clinical applications as Orthocon HEMASORB<sub>press</sub> and that Substantial Equivalence to the predicate devices has been established. The data presented demonstrate that the device is suitable for its indicated use. The materials from which the Orthocon device is fabricated have an established history of use, and the devices have been tested in accordance with applicable FDA guidelines.