

K972942

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AUREX

-8-

510 (k) Summary

Trade name: AURECAST 83
Common name: Dental casting alloy
Classification name: Gold based alloys and precious metal alloys for clinical use
Classification number: EJT

Legally marketed device: Jelenko Benchmark I
Description of the device: High gold casting alloy
Intended use of the device: Type II restorations

Summary of the technological characteristics

Test methods applied: as in ANSI/ADA 5 and ISO 1562

Comparison of composition:

ALLOY		COMPOSITION (weight%)						
	Name	Au	Ag	Pt	Cu	Zn	In	Ir
Legal	Benchmark I	83	8	1	5.2	0	2.2	x
New	Aurecast 83	83.1	6.7	0	8.7	1.5	0	0

x is less than 1 %

Comparison of physical and mechanical properties

ALLOY		Melting point range (°C)		Hardness (Vickers 5/30)		Yield strength (MPa)		Elongation (%)		Density (g/cm ³)
	Name	solid.	liquid	soft	hard	soft	hard	soft	hard	
Legal	Benchmark I	900	940	115		152		50		16.5
New	Aurecast 83	920	940	110	110	290	290	38	38	17.1

Discussion

Practically identical, very high gold content in both alloys. The major constituents are the same. The slightly higher Cu and Zn content of Aurecast 83 was intended to give increased strength and hardness. Due to the very high gold content both alloys have extreme corrosion and tarnish resistance.

Conclusion

With its very high concentration gold has a dominant influence on the alloys' properties. Owing to the practical equivalence of the gold concentration the two alloys should have similar chemical resistance and biological effect.





Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

AUG 28 1997

Mr. Jerome D. Davis
Managing Director
Aurex Precious Metal Industries (PTY) LTD
P.O. Box 509 Edenvale 1610
Republic of South Africa

Re: K972942
Trade Name: Aurecast 83
Regulatory Class: II
Product Code: EJT
Dated: June 13, 1997
Received: June 20, 1997

Dear Mr. Davis:

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 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). 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.

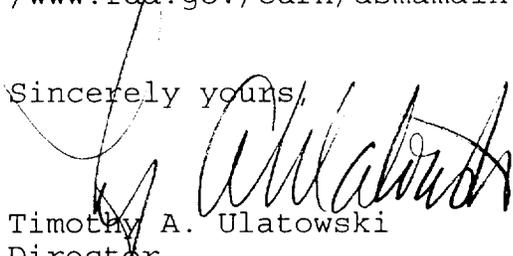
If your device is classified (see above) into either class II (Special Controls) or class III (Pre-market Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) 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) 594-4618. 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,



Timothy A. Ulatowski
Director
Division of Dental, Infection Control
and General Hospital Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

510(k) Number (if known): K972942

Device Name: AURECAST 83

Indications For Use:

Dental casting alloy for making restoration.

(NOT FOR USE WITH DENTAL PORCELAIN)
(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Susan Ruppel
(Division Sign-Off)
Division of Dental, Infection Control,
and General Hospital Devices
510(k) Number K972942

Prescription Use
(per 21 CFR 801.109)

OR

Over-The-Counter Use