



31st October 2012

RE: Compatibility of Wound Care Dressings with Use in Hyperbaric Chambers

Hyperbaric oxygen (HBO), or pressurized oxygen, is used as a therapy for a variety of clinical conditions. Patient safety within a hyperbaric chamber is a common concern, particularly due to the flammability risk in a high oxygen and high pressure environment. Thus, materials brought into the chamber should not pose a significant fire hazard.

Sutures, alloplastic devices, bacterial barriers, surgical dressings, biological interfaces, or synthetic textiles may be used at the discretion of the physician and safety director. While there is no official procedure for evaluating safety of wound dressings in a hyperbaric environment, Medline has contracted an independent third party testing center to conduct oxygen exposure (OE) testing and oxygen index (OI) measurements. Together, these tests can provide data for determining a product's compatibility within a controlled hyperbaric environment.

Based on the results to date, there is no evidence of increased flammability compared to control product, which was the compression therapy dressing Coban™ 2 from 3M Health Care, for the following test products. Specifically, the dressings did not catch fire by themselves (self ignite) in the pressurized oxygen atmosphere in OE testing, and in the OI testing, all test products displayed an oxygen index greater than or equal to that of the control material.

Product List (Test Products)

- Optifoam
- Optifoam Gentle
- Maxorb Extra
- SilvaSorb Gel*
- Optilock
- Versatel
- Fourflex
- Coflex TLC
- Coflex TLC Lite
- Nylon Stocking Material
- Heel Medix Heel Protector
- Therahoney Gel*
- Arglaes Powder*
- Medigrip

*Method of OI testing is yet to be fully validated for non-standard configurations such as gels and powders. OE testing, in contrast, for such products is standardized.

Thank you,

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