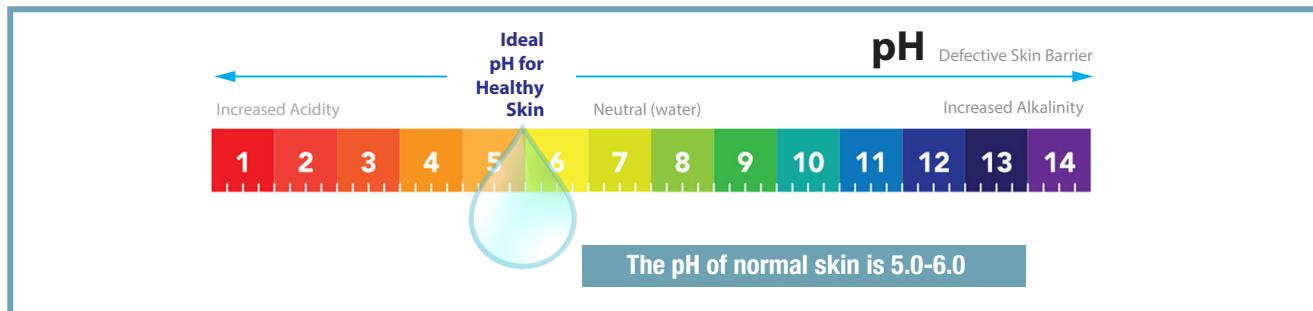


pH and Atopic Dermatitis:

EpiCeram® : Adjusting the Balance of Compromised Skin

Skin pH plays an important role in maintaining stratum corneum (SC) function.

- Skin pH protects against invasion by microorganisms while maintaining stratum corneum integrity
- Balanced skin pH supports the formation and maturation of the lipid lamellae



Skin pH Is increased in atopic dermatitis (AD)

- Increased skin pH results in activation of serine proteases, which blocks secretion of lamellar bodies
- Enzymes necessary for ceramide synthesis are decreased, leading to SC barrier dysfunction increasing the possibility of infection, inflammation, and itch¹
- Skin pH also influences S. aureus colonization, an important AD pathogenetic factor
 - Growth of staphylococcal strains is maximal at a neutral pH and markedly inhibited at pH values ~5²

Some moisturizers have higher pH levels, which has been linked to lower resolution of AD symptoms³

EpiCeram® has the ideal pH level for healthy skin

Product	pH
EpiCeram®	5.0 to 5.1
Aveeno Advance Care Moisturizing Cream	6.35 ± 0.01
DML Moisturizing Cream	6.55 ± 0.01
Triple Paste	6.60 ± 0.04
Aquaphor Ointment	6.82 ± 0.02
Neosalus Cream	7.40 ± 0.10
Eucerin Original Dry Skin Therapy Cream	8.01± 0.04
Eucerin Intensive Repair Body Lotion	8.19 ± 0.03

pH and Atopic Dermatitis:

EpiCeram® has the ideal pH balance and more of what you want...

Offering additional important benefits to support treatment

- EpiCeram is nonsteroidal; it can be used on patients of any age, anywhere on the skin, and there are no restrictions on long-term use
 - EpiCeram contains 3 essential lipids - ceramides, conjugated linoleic acid and cholesterol - in a physiologically balanced 3:1:1 ratio
 - An excellent safety profile – noncomedogenic⁴
 - Provides six times the ceramide level of any other Rx formulation⁵
 - Controlled-release BID dosing
 - The only Rx formulation containing CLA, a fatty acid with PPAR alpha agonist activity (anti-inflammatory)⁶
 - Steroid-free, fragrance-free, paraben-free and propylene glycol-free



References:

- 1.** Ali SM, Yosipovitch G. Skin pH: From Basic Science to Basic skin care. *Acta Derm Venereol*. 2013;93(3):261-7. **2.** Whiting RC, Sackeyi S, Calderone S, et al. Model for the survival of *Staphylococcus aureus* in nongrowth environments. *Int J Food Microbiol*. 1996;31(1-3):231-43. Giannuzzi L, Contreras E, Zaritzky N. Modeling the aerobic growth and decline of *Staphylococcus aureus* as affected by pH and potassium sorbate concentration. *J Food Prot*. 1999;62(4):356-62. **3.** Adapted from Vivian Shi, Khiem Tran, Peter Lio, A Comparison of Physicochemical Properties of a Selection of Modern Moisturizers: Hydrophylic index and pH.J.Drugs Dermatol: 2012;11(5) 633-634. **4.** Data on File. Primus Pharmaceuticals, Inc., 2018. **5.** Bikowski J. Understanding the structure, function, and strategies for repair of the epidermal barrier. *Practical Dermatology*. 2009;May:17-18. **6.** Harding CR. The stratum corneum: structure and function in health and disease. *Dermatol Ther*. 2004;17:6-15.

Rx Only

For Topical Dermatological Use Only

Product Description: Epiceram® Controlled Release Skin Barrier Emulsion is a steroid free, fragrance free ceramide dominant emulsion containing ceramide, conjugated linoleic acid (CLA), and cholesterol in an emollient base. **Indications for Use:** Epiceram® Controlled Release Skin Barrier Emulsion is to be used to treat dry skin conditions and to manage and relieve the burning and itching associated with various types of dermatoses, including atopic dermatitis, irritant contact dermatitis, and radiation dermatitis. Epiceram® helps to relieve dry, waxy skin by maintaining a moist wound and skin environment, which is beneficial to the healing process. **Contraindications:** Epiceram® Controlled Release Skin Barrier Emulsion is contraindicated in persons with known hypersensitivity to any of the components of the formulation. **Warnings:** Epiceram® Controlled Release Skin Barrier Emulsion does not contain a sunscreen and should always be used in conjunction with a sunscreen in sun exposed areas. In radiation dermatitis and/or in conjunction with ongoing radiation therapy, apply following radiation therapy. Do not apply within 4 hours prior to radiation therapy. Apply twice daily or as indicated by the radiation therapist. After application, a temporary tingling sensation may occur (10 to 15 minutes). Keep this and similar products out of the reach of children. Follow directions for use. If condition does not improve within 10 to 14 days, consult a physician. **Instructions for Use:** Apply in a thin layer to the affected skin areas two times per day (or as needed) and massage gently into the skin. If the skin is broken, cover Epiceram® Controlled Release Skin Barrier Emulsion with a dressing of choice. **How Supplied:** Epiceram® Controlled Release Skin Barrier Emulsion is supplied as follows: NDC 68040-752-17 90 gram tube. NDC 68040-752-40: 225 gram airless pump. Store at 15°C to 30°C (59°F to 86°F). Do not freeze. Epiceram is a registered trademark of Primus Pharmaceuticals, Inc. Scottsdale, AZ 85253.

By only a Prescription Medical Device; Federal Law restricts this device to sale by or on the order of a physician.

Distributed by: Primus Pharmaceuticals, Inc. Scottsdale, AZ 85253

www.epiceramrx.com

Epiceram is an prescription-only topical skin barrier repair product for the treatment of atopic dermatitis.

Controlled Release Skin Barrier Emulsion

EpiCeram®



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