



UNIOIL LSW

www.unitedchemicals-co.com

Product Overview

United Chemicals Laboratories proudly presents an innovative leap in leather enhancement: our specially developed blends of high sulphonated synthetic esters. This product is tailored to significantly enhance the tear strength and fiber lubrication of leather, ensuring both durability and quality.

Why Tear Strength Matters in Leather?

In the world of leather goods, durability is not just a feature; it's a necessity. Whether it's for fashion accessories, furniture, or automotive upholstery, the tear strength of leather determines its lifespan and resilience. Moreover, in certain applications, such as in upholstery for vehicles or heavy-duty equipment, leather's tear strength is critical for safety. Strong leather can provide a reliable covering that resists tearing in the event of an accident or heavy use.

Our high sulphonated synthetic esters blend ensures your leather withstands daily wear and tear, maintaining its integrity and appearance over time. This means fewer replacements, cost savings, and a positive environmental impact.

Innovative Formula for Enhanced Durability

Our unique blend works at the microscopic level, enhancing the leather's matrix structure. By improving fiber lubrication, the blend allows the leather fibers to move more freely and absorb stress more effectively, significantly increasing the tear load. This enhanced flexibility ensures that the leather can endure bending and flexing, which is crucial for items like shoes, bags, and jackets that require a high degree of movement.

How This Novel Product Works?

The use of our new formulated high sulphonated synthetic esters in leather processing does show promising results in improving the tear strength of leather. The enhancement of tear strength in leather by blends of high sulphonated synthetic esters can be attributed to some key factors;

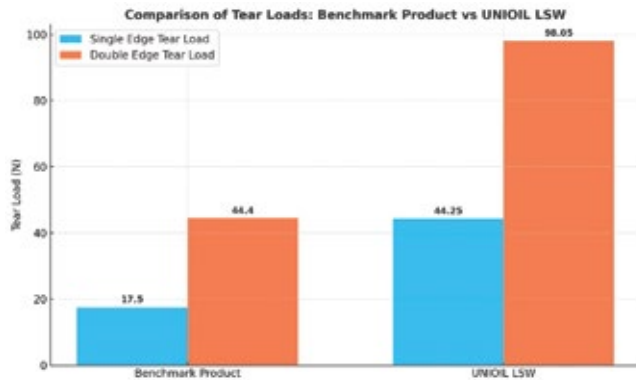
- UNIOL LSW can act as effective lubricants for the fibers within the leather. By increasing the lubricity of the fibers, the esters reduce friction and allow the fibers to move more freely relative to each other. This flexibility helps the leather to better absorb and distribute stress, thereby increasing its resistance to tearing.
- UNIOL LSW can also increase the cohesion between the fibers in the leather. By improving the bonding between fibers, the leather becomes more integrated and can withstand greater forces without tearing.
- UNIOL LSW can help to evenly distribute oils and lubricants throughout the leather. This uniform distribution ensures that all areas of the leather are equally treated, leading to more consistent strength and flexibility across the entire material.
- UNIOL LSW may chemically interact with the proteins in the leather, potentially leading to changes in the cross-linking of collagen fibers. These changes can result in a more stable and robust leather structure, contributing to increased tear strength.
- UNIOL LSW can impart a degree of water resistance to leather. Water resistance is beneficial for maintaining the integrity and strength of the leather, as excessive moisture can weaken leather fibers and make them more prone to tearing. In this case, it improves tear strength by making it easier for the fibers to slide over each other.

Typical Analysis

- Appearance: Whitish – light brown paste
- pH (10% solution): 6.5 ± 0.5
- Active Substance: 40%
- Ionic Character: Anionic

Properties

- Tear Resistance Improvement: UNIOIL LSW is specifically designed to increase tear resistance, ensuring enhanced durability and longevity of leather products. LSW demonstrates a significantly higher tear resistance than the benchmark product (equivalent product in the market) with tear loads of 44.25 N and 98.05 N in single and double edge tear tests respectively, compared to 17.5 N and 44.4 N for the benchmark product.



- Fiber Lubrication: Its unique formulation boosts fiber lubrication, promoting flexibility and preventing stiffness in leather products.

- Grain Firmness: Leather treated with UNIOIL LSW exhibits a particularly firm grain, enhancing the touch feelings and appearance.

Application

- Versatile Use: The usage percentages of UNIOIL LSW can vary based on the type of leather and the desired end products. It is adaptable for use in both retanning and fatliquoring processes.

- Dilution Guidance: Before use, emulsify UNIOIL LSW in 2-3 parts of warm water or more, as needed, to achieve the desired consistency and performance.

Benefits

- Enhanced Leather Quality: UNIOIL LSW's ability to improve tear resistance and fiber lubrication translates to superior quality leather that withstands daily wear and tear.

- Increased Flexibility: By lubricating the leather fibers, UNIOIL LSW ensures that the leather remains flexible and comfortable for various applications.

- Improved Aesthetics: The firm grain finish provided by UNIOIL LSW enhances the visual appeal and tactile experience of leather products.

Recommended Industries

- Apparel: Ideal for high-end leather garments and accessories where quality and durability are crucial.

- Furniture and Interior Design: Enhances the aesthetic and functional qualities of leather in furniture and decor.

- Automotive Leather: Suitable for automotive interiors, providing a blend of durability and luxury.

Environmental Commitment

Aligned with our dedication to sustainability, UNIOIL LSW is formulated with environmental considerations at its core, ensuring minimal ecological impact while delivering high performance.

Embrace the Future of Leather with United Chemicals Laboratories

Join us in embracing the future of leather enhancement. With United Chemicals Laboratories' high sulphonated synthetic esters blend, experience the perfect combination of science, quality, and durability, ensuring that your leather products stand the test of time. Your leather deserves the best - give it the care it needs with our advanced leather R&D.

For further details on incorporating UNIOIL LSW into your leather production process and revolutionizing your product range, please reach out to us at info@unitedchemicals-co.com

