

News Release

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April 24, 2023

MilliporeSigma Launches Ultimus® Film to Offer **Superior Strength and Leak Resistance in Single-use Assemblies**

- Cutting-edge technology now available in Mobius® 3D process containers
- Provides 10 times greater abrasion resistance compared to other single-use bioprocessing films², minimizing product loss
- Supports healthy cell growth and improves operational efficiency

Burlington, Massachusetts, April 24, 2023 - MilliporeSigma, the U.S. and Canada Life Science business of Merck KGaA, Darmstadt, Germany, today announced the launch of its Ultimus® Single-Use Process Container Film, designed to provide extreme durability and leak resistance for single use assemblies used for bioprocessing liquid applications.

Bag leaks have long been a top pain point for biomanufacturers, with the cost of a single leak ranging from \leq 45,000 to \leq 511,000 1 . To protect against such leaks, abrasions, tears, and material fatique, Ultimus® film is designed with a proprietary woven nylon structure and provides enhanced bag strength, improved durability, and resilience.

"We are committed to providing our customers with solutions that address their challenges in single-use manufacturing," said Darren Verlenden, Head of Process Solutions, Life Science business sector of Merck KGaA, Darmstadt, Germany. "Our innovative approach of incorporating woven nylon ensures the film's robustness



 $^{^{1} \ \}underline{\text{https://www.sigmaaldrich.com/deepweb/assets/sigmaaldrich/marketing/global/documents/124/012/ultimus-infographic-ms.pdf} \\ \underline{\text{https://www.sigmaaldrich.com/campaigns/ultimus-film}}$



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while providing ease of handling, flexibility, and conformity to a container that single-use processing demands."

Maintaining the film's integrity is crucial to ensure product quality, sterility, and reliable manufacturing operations in single-use bioprocessing. To achieve this, Ultimus® film has undergone rigorous testing and demonstrated exceptional performance compared to the average results of five other single-use bioprocessing films. This includes 10 times greater abrasion resistance, 2.8 times greater tensile strength, and twice as much puncture strength².

Ultimus[®] film provides an animal origin free contact resin that demonstrates a low extractable profile and supports healthy cell growth performance. This cutting-edge technology is now available in Mobius[®] 3D process containers, delivering a stronger and more durable solution that improves operational efficiency while minimizing disruptions.

Ultimus® Single-Use Process Container Film will be showcased at the 2023 Interphex in New York City from April 25th to 27th.

About the Life Science business of Merck KGaA, Darmstadt, Germany

The Life Science business of Merck KGaA, Darmstadt, Germany, which operates as MilliporeSigma in the U.S. and Canada, has more than 28,000 employees and more than 55 total manufacturing and testing sites worldwide, with a portfolio of more than 300,000 products focused on scientific discovery, biomanufacturing and testing services. Merck KGaA, Darmstadt, Germany, a leading science and technology company, operates across healthcare, life science and electronics.

More than 64,000 employees work to make a positive difference to millions of people's lives every day by creating more joyful and sustainable ways to live. From providing products and services that accelerate drug development and manufacturing as well as discovering unique ways to treat the most challenging diseases to enabling the intelligence of devices − the company is everywhere. In 2022, Merck KGaA, Darmstadt, Germany, generated sales of €22.2 billion in 66 countries.

The company holds the global rights to the name and trademark "Merck" internationally. The only exceptions are the United States and Canada, where the business sectors of Merck KGaA, Darmstadt, Germany, operate as MilliporeSigma in life science, EMD Serono in healthcare and EMD Electronics in electronics. Since its founding in 1668, scientific exploration and responsible entrepreneurship have been key to the company's technological and scientific advances. To this day, the founding family remains the majority owner of the publicly listed company. For more information about Merck KGaA, Darmstadt, Germany, visit www.emdgroup.com.

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² https://www.sigmaaldrich.com/campaigns/ultimus-film



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