### SAFC

Pharma & Biopharma Raw Material Solutions

#### Millipore Sigma

## Deviron® 13-S9

## Detergent, EMPROVE® EXPERT Product No. 1.08694

**Deviron® 13-S9** offers several sustainability benefits compared to Triton™X-100 and aligns with two principles of Green Chemistry: Designing Safer Chemicals and Design for Degradation.

**12 Principles-Aligned Products** such as **Deviron ®13-S9** align with one or more of the 12 Principles of Green Chemistry.

We use the 12 Principles of Green Chemistry to guide how we classify what's "green" about a Greener Alternative Product. Green Chemistry aims to reduce chemical-related impacts on human health and minimize contamination of the environment through dedicated, sustainable prevention programs.





#### **Designing Safer Chemicals**

Deviron® 13-S9 is a greener alternative for Triton™ X-100, which is a member of a class of octylphenol ethoxylates (OPEs) that have been identified as hazardous to human health and the environment and subject to restriction under REACH. Notably, Triton™ X-100 degrades into products that are endocrine disruptors in aquatic and other environments. Deviron® 13-S9 does not have the same structural characteristics as Triton™X-100. Under the United Nations' Globally Harmonized System (GHS), Deviron® 13-S9 has a lower aquatic toxicity.



#### **Design for Degradation**

Triton™ X-100 degrades into 4-tert-octylphenol, which is considered a harmful endocrine disruptor. Deviron® 13-S9 meets the OECD Guideline 301B test for "readily biodegradable", where according to the results of the toxicity control, a toxic effect towards microorganisms at the concentration tested can be excluded.

#### **Additional Sustainability Benefits:**

Deviron® 13-S9 is produced at a facility that uses 100% hydroelectric power. Its packaging also aligns with our packaging sustainability standards under our SMASH Packaging plan for optimized resources, maximized circularity, and deforestation-free fiber-based packaging.





# **Greener Alternative Products**

#### A better tomorrow starts with better research



Our growing portfolio of greener alternatives is just one of the ways we're committed to bringing you further in your sustainability journey.

Products with significant sustainability improvements are identified as Greener Alternative Products in our portfolio. Look for the green icon!

#### **Ordering Information**

Cat. No.	Product Description	Pack Size
1086941000	Deviron® 13-S9 Emprove® Expert	1 L
1086942500	Deviron® 13-S9 Emprove® Expert	2.5 L
1086949025	Deviron® 13-S9 Emprove® Expert	25 L



To place an order or receive technical assistance in the U.S. and Canada, call toll-free 1-800-645-5476 For other countries across Europe and the world, please visit: **EMDMillipore.com/offices**For Technical Service, please visit: **EMDMillipore.com/techservice** 

MilliporeSigma 400 Summit Drive Burlington, MA 01803

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