

## Sorbitan Monostearate

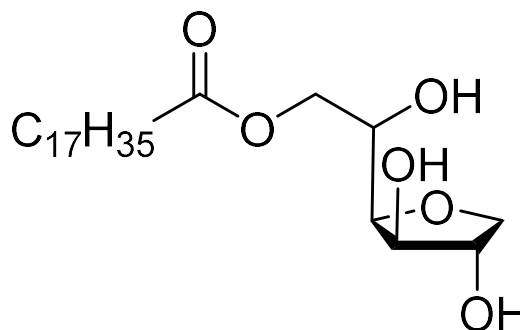
Catalog number: R-1318

Molecular Formula:  $C_{24}H_{46}O_6$

MW: 430.62

CAS No.: 1338-41-6

Alternate Names: Span 60



**Solubility:** Insoluble in water and propylene glycol. Soluble in ethanol, isopropanol, mineral oil, vegetable oils.

**Storage and Handling:** Store at room temperature. Keep container closed tightly in a dry well-ventilated space.

**Background:** Sorbitan monostearate (Span 60) is an ester of sorbitan (a sorbitol derivative) and stearic acid and is sometimes referred to as a synthetic wax. Sorbitan monostearate is primarily used as an emulsifier to keep water and oils mixed. Sorbitan monostearate is a non-ionic surfactant with emulsifying, dispersing, and wetting properties used as a food additive, additive in mixtures for drug use and in skin care products; used for oil-in-water emulsions in combination with a high hydrophilic-lipophilic balance emulsifier to produce smooth lotions and creams in skin and hair care, make-up bases, and mild cleaning products.

**References:** 1. Murdan, S., Gregoriadis, G., Florence, A., "Novel Sorbitan monostearate Organogels", *Journal of Pharmaceutical Sciences* (1999), 88(6), 608-614. DOI:10.1021/JS980342R  
2. Venturini, C., *et al.*, "Formulation of lipid core nanocapsules", *Colloids and Surfaces, A: Physicochemical and Engineering Aspects* (2011), 375(1-3), 200-208, DOI:10.1016/j.colsurfa.2010.12.01.  
3. El-Ridy, M., Badawi, A., Safar, M., Mohsen, A. "Niosomes as a novel pharmaceutical formulation encapsulating the hepatoprotective drug silymarin, *International Journal of Pharmacy and Pharmaceutical Sciences*" (2012), 4(1), 549-559.

**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

**Warranty and Disclaimer:** Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.