

# PRODUCT INFORMATION

## Cholesteryl Palmitate MaxSpec® Standard

Item No. 30250

**CAS Registry No.:** 601-34-3

**Formal Name:** (3β)-cholest-5-en-3-ol, 3-hexadecanoate

**Synonyms:** CE(16:0), 16:0(CE), 16:0 Cholesterol ester, Cholesterol Palmitate, NSC 59692

**MF:** C<sub>43</sub>H<sub>76</sub>O<sub>2</sub>

**FW:** 625.1

**Purity:** ≥95%

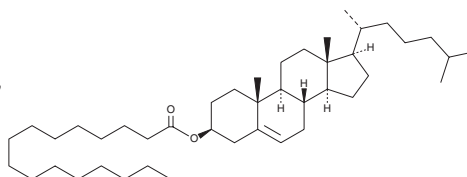
**Supplied as:** A solution in chloroform; in a deactivated glass ampule

**Concentration:** 100 µg/ml (nominal); see certificate of analysis for verified concentration

**Storage:** -20°C

**Stability:** ≥5 years; *Stability testing is ongoing to ensure concentration accuracy. The certificate of analysis and product expiry date will be updated upon completion of testing.*

**Special Conditions:** Store upright and unopened at -20°C. Warm to room temperature prior to opening. Light sensitive.



### Description

Cholesteryl palmitate is a cholesterol ester. It is a major cholesterol ester found in human meibum and has been used to form a stable tear film to study amphiphilic block copolymers as surfactants for dry eyes.<sup>1</sup> Cholesteryl palmitate levels in amniotic fluid are decreased in pregnancies in which infants later developed respiratory distress syndrome and in patients with well-controlled diabetes.<sup>2,3</sup> Levels of cholesteryl palmitate are increased in bronchoalveolar lavage fluid (BALF) from patients with chronic interstitial pneumonia.<sup>4</sup>

Cholesteryl palmitate MaxSpec® standard is a quantitative grade standard of cholesteryl palmitate (Item No. 26473) that has been prepared specifically for mass spectrometry or any application where quantitative reproducibility is required. The solution has been prepared gravimetrically and is supplied in a deactivated glass ampule sealed under argon. The concentration was verified by comparison to an independently prepared calibration standard. This cholesteryl palmitate MaxSpec® standard is guaranteed to meet identity, purity, stability, and concentration specifications and is provided with a batch-specific certificate of analysis. Ongoing stability testing is performed to ensure the concentration remains accurate throughout the shelf life of the product. **Note:** The amount of solution added to the vial is in excess of the listed amount. Therefore, it is necessary to accurately measure volumes for preparation of calibration standards. Follow recommended storage and handling conditions to maintain product quality.

### References

1. Shine, W.E. and McCulley, J.P. Polar lipids in human meibomian gland secretions. *Curr. Eye Res.* **26**(2), 89-94 (2003).
2. Ludmir, J., Alvarez, J.G., Mennuti, M.T., *et al.* Cholesteryl palmitate as a predictor of fetal lung maturity. *Am. J. Obstet. Gynecol.* **157**(1), 84-88 (1987).
3. Ludmir, J., Alvarez, J.G., Landon, M.B., *et al.* Amniotic fluid cholesteryl palmitate in pregnancies complicated by diabetes mellitus. *Obstet. Gynecol.* **73**(3 Pt.1), 360-362 (1988).
4. Fukuhara, N., Tachihara, M., Tanino, Y., *et al.* Cholesteryl palmitate crystals in bronchoalveolar lavage fluid smears as a possible prognostic biomarker for chronic interstitial pneumonia: A preliminary study. *Respir. Investig.* **54**(2), 109-115 (2016).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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