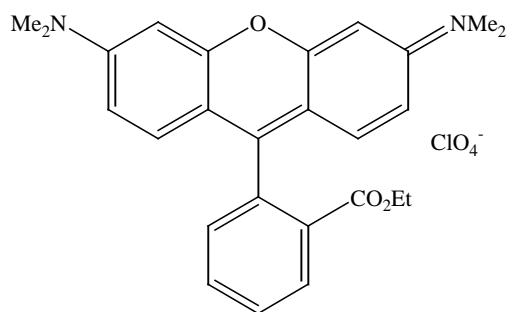


PRODUCT AND SAFETY DATA SHEET

PRODUCT NAME: Tetramethylrhodamine ethyl ester, perchlorate (TMRE)**CATALOG NUMBER:** 70016**MOLECULAR INFORMATION:** C₂₆H₂₇ClN₂O₇
Mwt: 515**PROPERTIES:**

Color & Form	Red solid.
Purity	≥ 95% by HPLC
Solubility	Soluble in DMSO, EtOH
λ_{ex}/λ_{em}	549/574nm
Extinction Coefficient (ε)	108,000 M ⁻¹ cm ⁻¹ (549 nm; in MeOH)

STORAGE AND HANDLING:

Store desiccated at 4 °C and protect from light, especially in solution.

APPLICATION:

TMRM (70017) and TMRE (70016) are said to be the preferred dyes for quantitative measurements of membrane potentials using Nernst equation. The dyes do not form aggregates in cell membranes and interact with membrane proteins minimally. Thus, the transmembrane distribution of the dyes is directly related to the membrane potential via Nernst equation.

Ref.: 1) *Meth. Cell Biol.* **38**, 195(1993); 2) *Meth. Cell Biol.* **30**, 193(1989); 3) *Biophys. J.* **56**, 1053(1989); 4) *Biophys. J.* **53**, 785(1988).

TOXICITY:

Unknown

FIRST AID:

Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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