

# PRODUCT INFORMATION



## Calcium Ionophore I

Item No. 17407

**CAS Registry No.:** 58801-34-6  
**Formal Name:** 13,17R,18R,22-tetramethyl-14,21-dioxo-16,19-dioxa-13,22-diazatetracontanedioic acid, 1,34-diethyl ester

**Synonyms:** CA 1001, ETH 1001

**MF:** C<sub>38</sub>H<sub>72</sub>N<sub>2</sub>O<sub>8</sub>

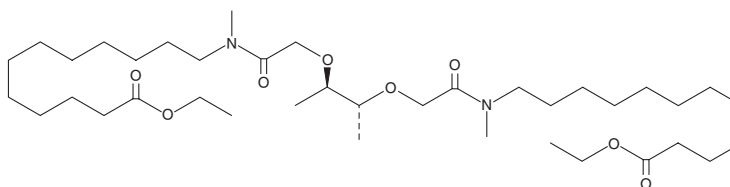
**FW:** 685.0

**Purity:** ≥95%

**Supplied as:** A solution in ethanol

**Storage:** -20°C

**Stability:** ≥2 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Calcium ionophore I is supplied as a solution in ethanol. A stock solution may be made by dissolving the calcium ionophore I in the solvent of choice, which should be purged with an inert gas. Calcium ionophore I is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of calcium ionophore I in these solvents is approximately 30 mg/ml.

Calcium ionophore I is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, calcium ionophore I should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Calcium ionophore I has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Calcium ionophore I is a Ca<sup>2+</sup>-selective ionophore for biological membranes that can be used in microelectrodes for the determination of intracellular Ca<sup>2+</sup>-activities and of slowly changing Ca<sup>2+</sup> levels.<sup>1</sup>

### Reference

1. Dagostino, M. and Lee, C.O. Neutral carrier Na<sup>+</sup>- and Ca<sup>2+</sup>-selective microelectrodes for intracellular application. *Biophys. J.* **40**(3), 199-207 (1982).

#### 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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