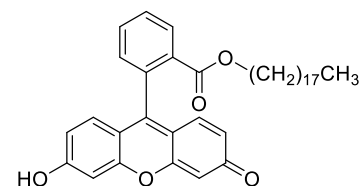


Product Information



27102 Chromoionophore XI

(ETH 7061; Fluorescein octadecyl ester)
Selectophore®

Optical Transduction

Application 1 and Sensor Type¹

Determination of 10 to 60% (v/v) ethanol in aqueous solution with an ethanol-sensitive solvent polymeric membrane based on Chromoionophore XI (fluorescence measurement).

Recommended Membrane Composition

- 5.0 wt% Chromoionophore XI ([27102](#))
- 63.3 wt% Bis(1-octylhexyl)phthalate ([80030](#))
- 31.6 wt% Poly(vinyl chloride) high molecular weight ([81392](#))

Recommended pH Buffer

0.1 M potassium dihydrogen phosphate with 0.05 M sodium tetraborate, pH 7.4.

Fluorescence Properties of Chromoionophore XI

$\lambda_{excitation}$: 463 nm $\lambda_{emission}$: 527 nm

Optode Characteristics and Function

Concentration of alcohols causing a 5% increase in fluorescence signal of the optode membrane, relative sensitivity (ethanol=1) and measuring range.

	conc. [v/v]	Rel. sensitivity	Measuring range [v/v]
Methanol	5.8%	0.7	15-80%
Ethanol	4.2%	1.0	10-60%
2-Propanol	2.5%	1.7	15-50%
1-Propanol	1.5%	2.8	10-50%
1-Butanol	0.5%	8.4	-

Response time: <30 s

¹ Development of an alcohol optode membrane on fluorescence enhancement of fluorescein derivatives. H. H. Zeng, K. M. Wang, D. Li, R. Q. Yu, Talanta 41, 969 (1994).

