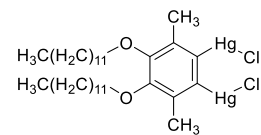


Product Information



24894 Chloride ionophore III

(ETH 9033; 3,6-Didodecyloxy-4,5-dimethyl-*o*-phenylene-bis(mercury chloride)
Selectophore®, function tested

Electrochemical Transduction

Ion-selective Electrodes

Application 1 and Sensor Type¹

Assay of Cl⁻ activity with solvent polymeric membrane electrode based on Chloride ionophore III.

Recommended Membrane Composition

- 2.0 wt% Chloride ionophore III ([24894](#))
- 1.2 wt% Tridodecylmethylammonium chloride ([91661](#))
- 63.8 wt% Bis(2-ethylhexyl) sebacate ([84818](#))
- 33.0 wt% Poly(vinyl chloride) high molecular weight ([81392](#))

Recommended Cell Assembly

Reference || sample solution || liquid membrane | 0.01 M NaCl | AgCl, Ag

Electrode Characteristics and Function

Selectivity coefficients $\log K_{Cl,X}^{Pot}$ as obtained by the separate solution method (0.1 M of the solutions of the sodium salts at 22°C).

$\log K_{Cl,Br}^{Pot}$	-1.4	$\log K_{Cl,OAc}^{Pot}$	-6.3
$\log K_{Cl,I}^{Pot}$	-1.7	$\log K_{Cl,F}^{Pot}$	-6.6
$\log K_{Cl,SCN}^{Pot}$	-0.3	$\log K_{Cl,HCO_3}^{Pot}$	-4.8
$\log K_{Cl,Salicylate}^{Pot}$	-0.1	$\log K_{Cl,HPO_4}^{Pot}$	-6.9
$\log K_{Cl,ClO_4}^{Pot}$	-4.5	$\log K_{Cl,SO_4}^{Pot}$	-6.4
$\log K_{Cl,NO_3}^{Pot}$	-6.7		

Slope of linear regression: -56.9±1.2 mV/dec (10⁻⁵ to 10⁻¹ M NaCl)

Response time: 90% response time: 15.8 s (10⁻³ to 10⁻² M), 10.0 s (10⁻² to 2·10⁻³ M)

¹ Response mechanism of anion-selective electrodes based on mercury organic compounds as ionophores. M. Rothmaier, U. Schaller, W. Morf, E. Pretsch, Anal. Chim. Acta 327, 17 (1996).

