

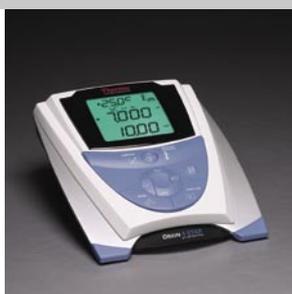
Iodine in Over-the-Counter Antiseptics

Orion 4-Star pH/ISE
Benchtop Meter

Pharmaceutical

Concentration measurement by Ion Selective Electrode (ISE) means is one of the most common analytical techniques used in chemistry laboratories today. One common parameter measured using ISE methods is iodine, which is used in many over-the-counter antiseptics.

Thermo Electron Corporation offers a wide range of meters, electrodes and consumables to accurately measure ISE levels in a variety of samples.



For instructions on pH/ISE measurement using Orion products, download our Star Series meter information at www.thermo.com/water.



Orion 4-Star pH/ ISE for Iodine in Over-The-Counter Antiseptics

An antiseptic is a substance that inhibits the growth and development of microorganisms. Commonly used antiseptics for skin cleaning include benzalkonium chloride, chlorhexidine, hexachlorophine, iodine compounds, mercury compounds, alcohol and hydrogen peroxide. Iodine compounds have the broadest spectrum of all topical anti-infectives, with action against bacteria, fungi, viruses, spores, protozoa, and yeasts.

Many manufacturers use Orion products everyday for purposes of Research & Development, Quality Control and Product Labeling. Our meters, electrodes and solutions help to ensure the accuracy of ingredient content.

With the easy-to-use Orion 4-Star pH/ISE meter (Cat. No. 1115000) and Orion ionplus® iodide electrode (Cat. No. 9653BNWP) pH and ISE measurements are fast and accurate. This rugged meter offers a full complement of GLP-related features and can store up to 10; a valuable feature for busy multi-user labs. Orion products offer top quality meter features with proven electrode technology to provide a complete package needed to measure iodine in antiseptics.

Orion 4-Star pH/ISE

The  with the Orion ionplus® Iodide electrode (Cat. No. 9653BNWP) offers an optimum solution to meet pH and ISE measurement needs.

Orion 4-Star pH/ISE Specifications:

Specifications		Benefit
pH		
Readout Range / Resolution	-2.000 to 19.999 or 0 to 14 in aqueous solutions / 0.1,0.01,0.001	Calibration point flexibility
Relative Accuracy	± 0.002	For exceptional accuracy
SMART STABILITY™ and SMART AVERAGING™	Resolution dependent / automatic	Optimized accuracy, precision & response time
AUTO-CAL™ and/or Manual Calibration	1 to 5 points; US/NIST, DIN, and custom buffers recognized	Protocol compliance
ISE		
Range / Resolution	0 to 19900 / 1,2, or 3 significant digits	Wide operating range/Increased accuracy
Relative Accuracy	± 0.2 mV or 0.05%, whichever is greater	
SMART STABILITY™ and SMART AVERAGING™	Resolution dependent / automatic	Optimized accuracy, precision, & response time
Units	M, mg/L, %, ppb, or no units	Choice of reporting units
# ISE Cal points	1 to 5	
Special ISE Calibration Features	Linear point to point, selectable auto-blank non-linear, low concentration range	
Temperature		
Range / Resolution	-5 to 105 °C / 0.1 up to 99.9 °C, 1.0 over 99.9 °C	Allows for temperature variations
Relative Accuracy	± 0.1 °C	
Temperature Compensation	Auto/Manual	
Display	Custom backlit LCD, for easy viewing	Easy to read screen
Special GLP Software Features		
# Of Data Logging Points	200 points by time, stability or manual read with time/date stamp	Expanded data storage available
Calibration Log	Last 10 Calibrations	Establish audit trail
User Method Storage	10 Saved	For easy retrieval of routine tests
Power	Universal power adapter and battery power 4 x AA batteries	Data is secure
Regulatory and Safety	CE, CSA, UL, TÜV, FCC Class A limits	Meets all necessary regulations
Environmental Operating Conditions		
Ambient Operating Temperature	5 to 45 °C	
Relative Humidity	5 to 85% Non-Condensing	
IP Rating	IP54, splashproof and dustproof	
Warranty	36 months (from date of purchase)	Reduces service cost

Above data generated under optimal/controlled circumstances.

Equipment needed for pH/ISE measurement using the Orion 4-Star pH/ISE meter:

Description	Orion Cat. No.
Iodine Application Package (includes all items listed below)	1010164
Star Series Method Note: Iodine in OTC Antiseptics	M-1807-E
4-Star benchtop pH/ISE meter	1115000
Orion ionplus® Iodide electrode	9653BNWP
Iodide Standard	945306
Optimum Results D Reference Fill Solution 5x60 mL	900063
Benchtop Electrode Stand	1110001
Benchtop Stirrer	096019

Thermo
ELECTRON CORPORATION

www.thermo.com

Environmental Instruments Water Analysis Instruments

166 Cummings Center
Beverly, MA 01915 USA

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Toll Free: 1-800-225-1480
Tel: 1-978-232-6000
Dom. Fax: 1-978-232-6015
Int'l Fax: 978-232-6031
www.thermo.com/water



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