Lead Half Cell ISE

The EDT directION Lead Half Cell ion selective electrode has a solid state Crystalline membrane. It requires the use of a double junction reference electrode which has its outer chamber filled with the Ionic strength adjustment buffer (ISAB) detailed below.

The electrode is designed for the detection and analysis of Lead ions in aqueous solutions and is suitable for use in the laboratory and in on line analyzers. Please note that both the ISE and the reference electrode need to be placed in the standards or samples simultaneously and should not be more than around 10cm apart. The side filling cap of the double junction reference electrode should be open during measurements and closed during storage.

The EDT Half Cell ISE can be used immediately but pre-soaking for 5 minutes in a 100 ppm Lead solution along with the double junction reference electrode is recommended. The ionic strength of the standards and solutions should be kept constant between all standards and samples. This is achieved by the simple addition of an Ionic strength adjustment buffer (ISAB). Potassium Nitrate is ideal. A typical addition would be 1 ml of 5 molar ISAB to 100 ml of standard and sample. This solution is also used as the outer chamber reference electrode filling solution.

For low level measurements below around 50 ppm in relatively pure samples no ISAB is needed. No temperature correction is possible it is therefore important that all standards and samples should be measured at the same temperature to ensure that temperature effects are eliminated.

Begin calibration from the lowest concentration standard to avoid cross contamination. Calibration should cover the anticipated range of the samples. Rinse tips of both electrodes with de-ionised water between measurements and dab off excess water. When the response time or slope of your crystalline ISE reduces you can lightly polish the tip with very fine emery paper to refresh.

To see a simple calibration please visit our website. EDT directION produce a full range of Stock Standards and Ionic Strength Adjustment Buffers (ISABs) to save valuable time and give confidence in the quality of your results.

Specifications

Cable Length	1M
Cap Diameter	16mm
Commodity Code	90279050
Concentration Range	0.2-20,800ppm
Connector	BNC
Diameter	12mm
Endpoint Time	Typically 10-60 Seconds
Interferences	Mercury, Silver, Copper
Length	155mm
pH Range	3-7pH
Potential Drift	2mV Per Day
Reference Type	Requires Double Junction Reference Electrode
Resistance at 25°C	<2.5 Mohm
Temperature Range	5-50°C

Related Products

Double Junction Referenec Electrode

Lead Standard Solution (500ml)

QP459 Portable Ion Meter

www.edt.co.uk/1231