

YSI 251401Y

YSI 251401Y DPD Free Chlorine Reagent Powder User Manual

For pHotoFlex and 900 Chlorine Colorimeter

1. PRODUCT OVERVIEW

The YSI 251401Y DPD Free Chlorine Reagent Powder is an EPA-approved chemical reagent designed for accurate measurement of free chlorine concentrations. This product is specifically formulated for use with YSI pHotoFlex and 900 Chlorine Colorimeter instruments, providing reliable results within a range of 0.02 to 2 mg/L. Each pack contains 100 individual 10ml volume powder packets, ensuring convenience and consistent dosing for laboratory and field applications.

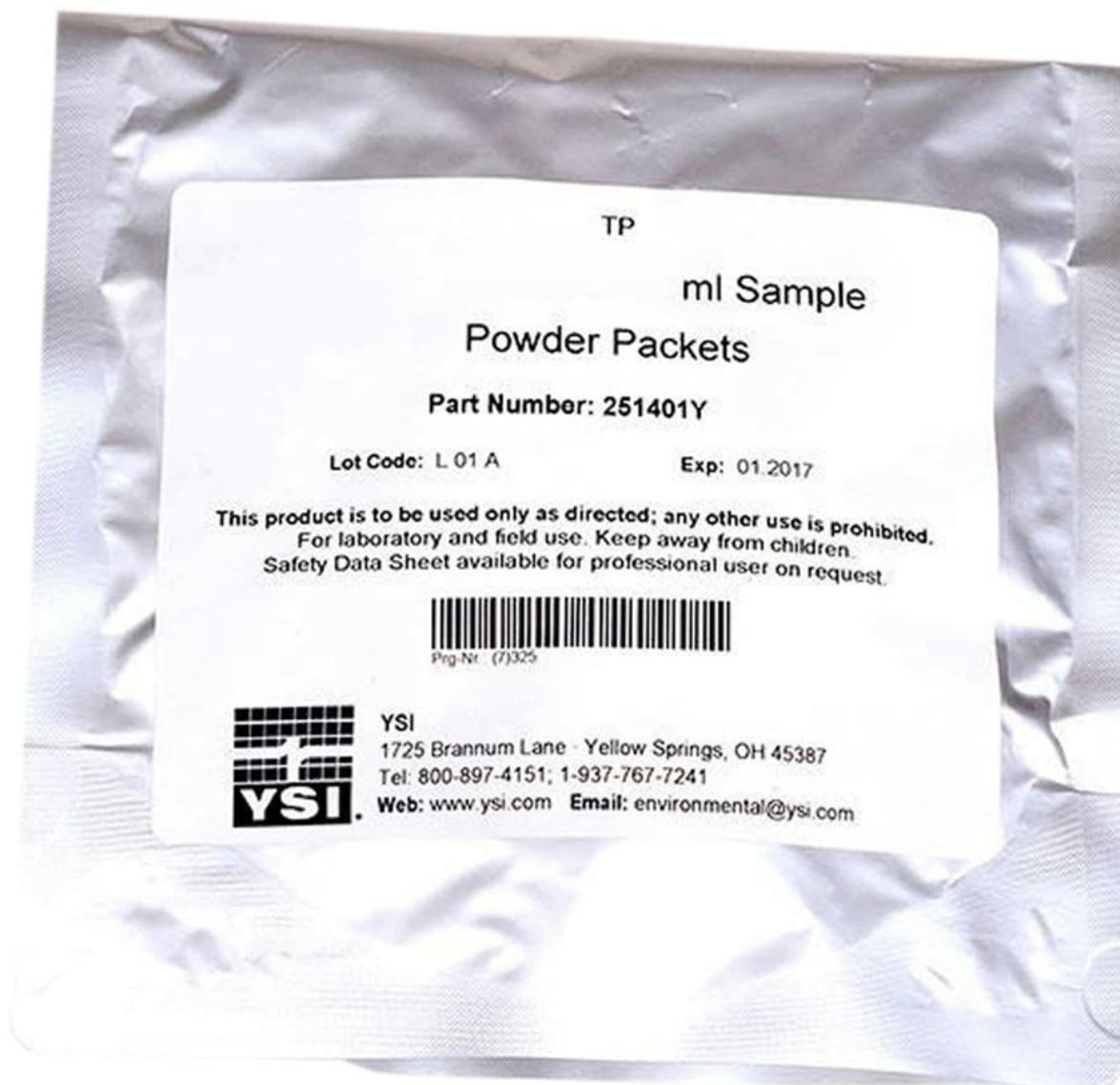


Image 1.1: A single packet of YSI 251401Y DPD Free Chlorine Reagent Powder. The label indicates "Powder Packets," "Part Number: 251401Y," "Lot Code: L 01 A," and "Exp: 01.2017." It also includes safety warnings and manufacturer contact information.

2. SAFETY INFORMATION AND HANDLING

This product is intended for professional laboratory and field use only. Adherence to all safety guidelines is critical for proper and safe operation.

- **Use as Directed:** This product is to be used only as directed. Any other use is prohibited.
- **Keep Away from Children:** Store and use this product out of reach of children.
- **Safety Data Sheet (SDS):** A detailed Safety Data Sheet is available upon request for professional users. It contains comprehensive information regarding chemical properties, hazards, safe handling, emergency procedures, and disposal.
- **Personal Protective Equipment (PPE):** Always wear appropriate personal protective equipment, such as safety glasses and gloves, when handling chemical reagents.
- **Ventilation:** Use in a well-ventilated area.
- **Disposal:** Dispose of used reagents and samples according to local environmental regulations.

3. SETUP AND PREPARATION

Before beginning any measurement, ensure you have the necessary equipment and that your colorimeter is calibrated according to its specific user manual.

3.1 Required Materials (Not Included)

- YSI pHotoFlex or 900 Chlorine Colorimeter
- Clean sample cells/vials
- Deionized water (for rinsing and blanking)
- Sample to be tested

3.2 Reagent Preparation

The YSI 251401Y DPD Free Chlorine Reagent is provided in pre-measured powder packets, eliminating the need for manual weighing or dilution. Each packet contains the precise amount of reagent for a 10ml sample volume.

4. OPERATING INSTRUCTIONS FOR FREE CHLORINE MEASUREMENT

Follow these steps for accurate free chlorine measurement using the YSI 251401Y DPD Free Chlorine Reagent Powder with a compatible YSI colorimeter.

1. **Prepare Sample Cell:** Rinse a clean sample cell thoroughly with deionized water, then with a small amount of the sample to be tested.
2. **Fill Sample Cell:** Fill the sample cell with 10 ml of the water sample to be analyzed. Ensure the sample volume is precise.
3. **Add Reagent:** Carefully open one YSI 251401Y DPD Free Chlorine Reagent Powder packet. Add the entire contents of the powder packet to the 10 ml sample in the cell.
4. **Mix:** Cap the sample cell and invert it gently several times to dissolve the powder completely. Avoid shaking vigorously, which can introduce air bubbles. A pink color will develop if free chlorine is present.
5. **Reaction Time:** Allow a reaction time of approximately 1 minute for the color to fully develop. Consult your colorimeter's manual for specific reaction time recommendations.
6. **Measure:** Insert the prepared sample cell into the YSI pHotoFlex or 900 Chlorine Colorimeter. Follow the instrument's instructions to initiate the measurement. The colorimeter will display the free chlorine concentration in mg/L.
7. **Record Results:** Record the measurement results immediately.
8. **Clean Up:** After measurement, empty the sample cell and rinse it thoroughly with deionized water.

Note: For best results, perform measurements promptly after sample collection. The DPD method is sensitive to light and temperature; protect samples and reagents from direct sunlight and extreme temperatures.

5. MAINTENANCE AND STORAGE

Proper storage of the reagent packets is essential to maintain their integrity and ensure accurate results.

- **Storage Conditions:** Store the YSI 251401Y DPD Free Chlorine Reagent Powder packets in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Original Packaging:** Keep the packets in their original packaging until ready for use to protect them from moisture and contamination.
- **Expiration Date:** Always check the expiration date printed on each packet (e.g., "Exp: 01.2017" as shown in

Image 1.1). Do not use expired reagents, as they may yield inaccurate results.

- **Disposal:** Dispose of expired or unused reagents according to local hazardous waste regulations.

6. TROUBLESHOOTING

This section addresses common issues that may arise during the use of the DPD Free Chlorine Reagent.

Problem	Possible Cause	Solution
No color development or faint color when chlorine is expected.	<ul style="list-style-type: none">• Expired reagent.• Insufficient mixing.• Sample pH outside optimal range.• Interfering substances in sample.	<ul style="list-style-type: none">• Check expiration date; use fresh reagent.• Ensure complete dissolution of powder.• Verify sample pH is within the colorimeter's specified range for DPD method.• Consult colorimeter manual for known interferences.
Inconsistent or erratic readings.	<ul style="list-style-type: none">• Improper sample volume.• Contaminated sample cells.• Air bubbles in sample cell.• Colorimeter calibration issue.	<ul style="list-style-type: none">• Ensure precise 10 ml sample volume.• Thoroughly clean sample cells before each use.• Gently invert to mix, avoid vigorous shaking.• Perform colorimeter calibration as per instrument manual.

7. SPECIFICATIONS

- **Product Name:** YSI 251401Y DPD Free Chlorine Reagent Powder
- **Part Number:** 251401Y
- **Application:** Free Chlorine Measurement
- **Compatibility:** YSI pHotoFlex and 900 Chlorine Colorimeter
- **Approval:** EPA Approved
- **Volume per Packet:** 10 ml (for 10 ml sample)
- **Measurement Range:** 0.02 to 2 mg/L
- **Quantity:** Pack of 100 packets
- **Item Form:** Powder
- **Item Weight:** Approximately 2.4 Ounces (for the pack)

8. WARRANTY AND SUPPORT

For technical support, product inquiries, or to request a Safety Data Sheet (SDS), please contact YSI directly using the information below.

Manufacturer: YSI

Address: 1725 Brannum Lane, Yellow Springs, OH 45387, USA

Telephone: 800-897-4151; 1-937-767-7241


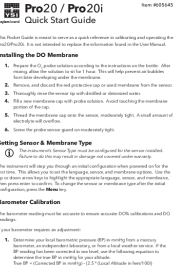

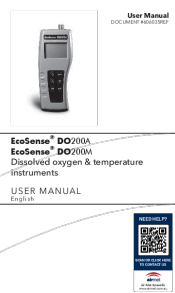

Website: www.y si.com

Email: environmental@y si.com

YSI stands behind the quality of its products. Please refer to the official YSI website or contact customer support for detailed warranty information applicable to this reagent.

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Related Documents - 251401Y

	<p>YSI Model 32 Conductance Meter Instruction Manual</p> <p>Instruction manual for the YSI Model 32 Conductance Meter, detailing its general description, specifications, operating procedures, maintenance, and calibration.</p>
	<p>YSI Pro20/Pro20i Quick Start Guide: Calibration and Operation</p> <p>Concise guide for calibrating and operating the YSI Pro20/Pro20i dissolved oxygen meters, covering membrane installation, sensor setup, barometer and DO calibration, salinity compensation, and measurement taking. Includes essential operational steps and contact information.</p>
	<p>YSI 3821 Buffer Solution pH 4.00 Safety Data Sheet (SDS)</p> <p>Comprehensive Safety Data Sheet (SDS) for YSI 3821 Buffer Solution pH 4.00, detailing product identification, hazards, composition, first aid, handling, storage, and regulatory information.</p>
	<p>YSI EcoSense DO200A/DO200M Dissolved Oxygen and Temperature Instruments User Manual</p> <p>This user manual provides comprehensive instructions for operating, installing, maintaining, and troubleshooting the YSI EcoSense DO200A and DO200M dissolved oxygen and temperature instruments. It includes details on specifications, accessories, and warranty information.</p>
	<p>YSIT-1 Satellite Transmitter Operation and Maintenance Manual</p> <p>Comprehensive user manual for the YSI Model YSIT-1 Satellite Transmitter, covering its operation, maintenance, hardware setup, and serial command reference. Details include time management, data storage, GOES data formatting, RF transmitter control, and GPS synchronization.</p>



**IQ SENSOR NET
MIQ/CHV PLUS**



Valve module for compressed air-operated
sensor cleaning heads

10/2004 11/07

[YSI IQ Sensor Net MIQ/CHV PLUS Operating Manual](#)

This operating manual provides detailed instructions for the YSI IQ Sensor Net MIQ/CHV PLUS valve module, covering installation, settings, maintenance, and safety guidelines for compressed air-operated sensor cleaning heads.