Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

HACH 42432

Hach 42432 Hardness 1 Buffer Solution User Manual

Model: 42432

1. Introduction

The Hach 42432 Hardness 1 Buffer Solution is a precisely formulated reagent designed for use in water hardness testing procedures. This 100 mL MDB (Multi-Dose Bottle) solution is critical for adjusting the pH of water samples to the optimal range required for accurate hardness determinations, typically when using titration methods with indicators like ManVer 2 or Calmagite.

Proper use of this buffer ensures reliable and consistent results in laboratory and field applications. It is manufactured by HACH, a trusted name in water analysis instrumentation and reagents.



Figure 1: Hach 42432 Hardness 1 Buffer Solution, 100 mL MDB bottle. The bottle is opaque white with a black dropper cap. The HACH logo is visible on the label, along with contact information and storage temperature guidelines.

2. Setup and Storage

The Hach 42432 Hardness 1 Buffer Solution is supplied ready-to-use. No prior preparation or dilution is required before its application in testing procedures.

2.1. Storage Conditions

- Store the solution in its original container, tightly capped, to prevent contamination and evaporation.
- Maintain storage temperature between **10°C and 30°C (50°F and 86°F)**. Avoid extreme temperatures, direct sunlight, and freezing.
- Keep out of reach of children and pets.
- Refer to the product label for the expiration date. Do not use the solution past its expiration date.

3. Operating Instructions

This buffer solution is typically used in conjunction with a titrant and an indicator for determining water hardness. Always refer to the specific test method instructions provided with your Hach test kit or instrument for precise usage details.

3.1. General Usage Procedure (Example for Hardness Titration)

1. **Prepare Sample:** Collect a representative water sample according to standard sampling procedures.
2. **Add Buffer:** Add the specified number of drops or volume of Hach 42432 Hardness 1 Buffer Solution to your water sample. Mix thoroughly. The exact quantity will depend on the specific test method.
3. **Add Indicator:** Add the appropriate hardness indicator (e.g., ManVer 2, Calmagite) to the buffered sample. The sample should develop a specific initial color.
4. **Titrate:** Slowly add the hardness titrant (e.g., EDTA Titrant) drop by drop, or using a digital titrator, while swirling the sample. Continue until the color changes to the specified endpoint color.
5. **Record Results:** Note the volume of titrant used and calculate the hardness concentration as per the test method instructions.

3.2. Safety Precautions

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when handling chemical reagents.
- Avoid contact with skin and eyes. In case of contact, rinse immediately with plenty of water.
- Do not ingest. If swallowed, seek immediate medical attention.
- Use in a well-ventilated area.
- Refer to the Safety Data Sheet (SDS) for complete safety information.

4. Maintenance and Disposal

4.1. Solution Integrity

- Ensure the bottle cap is securely tightened after each use to prevent contamination and maintain solution stability.
- Avoid introducing foreign substances into the bottle.
- If the solution appears cloudy, discolored, or shows signs of particulate matter, it may be compromised and should not be used.

4.2. Disposal

Dispose of expired or unused buffer solution and any waste generated from testing in accordance with all local, state, and federal environmental regulations. Consult your facility's waste management guidelines or local authorities for proper disposal procedures for chemical reagents.

5. Troubleshooting

If you encounter issues or inconsistent results when using the Hach 42432 Hardness 1 Buffer Solution, consider the following:

- **Incorrect pH:** Ensure the buffer solution is added correctly and in the specified amount. Verify the pH of the buffered sample if possible, using a pH meter.
- **Expired Reagents:** Check the expiration dates of all reagents used in the test, including the buffer solution, indicator, and titrant. Expired reagents can lead to inaccurate results.
- **Contamination:** Ensure all glassware and equipment are clean and free from contamination. Use deionized or distilled water for rinsing.
- **Storage Conditions:** Confirm that the buffer solution has been stored under the recommended temperature

conditions (10-30°C) and away from direct light.

- **Interferences:** Certain substances in the water sample may interfere with the hardness test. Refer to your specific test method's documentation for known interferences.
- **Test Method Adherence:** Review the complete test procedure to ensure all steps are followed precisely, including mixing times and observation of color changes.

If problems persist, contact Hach Technical Support for further assistance.

6. Specifications

Attribute	Detail
Product Name	Hardness 1 Buffer Solution
Model Number	42432
Brand	HACH
Volume	100 mL
Container Type	MDB (Multi-Dose Bottle)
Package Dimensions	10 x 8 x 4 inches
Item Weight	1 Pound
National Stock Number	6810-01-494-3690
Date First Available	August 28, 2014
Manufacturer	HACH COMPANY
ASIN	B00N40GN9A

7. Support and Contact Information

For technical assistance, product inquiries, or support regarding the Hach 42432 Hardness 1 Buffer Solution, please contact HACH directly:

- **Hach Company (USA):** P.O. Box 389, Loveland, CO 80539 USA
  Phone: (970) 669-3050
- **Hach Sales & Service LP (Canada):** 3020 Gore Road, London, Ontario N5V 4T7 Canada
  Phone: 1-800-665-7635
- **HACH LANGE GmbH (Germany):** Willstätterstrasse 11, 40549 Düsseldorf, Germany
  Phone: +49-(0)211-52880
- For additional contact information and resources, visit the official HACH Store on Amazon or the HACH corporate website.

This product is made in the US of US and Imported Content.

© 2024 HACH. All rights reserved. Information subject to change without notice.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B00N40GN9A

More documents and user manuals: **https://manuals.plus/**