

## NICE chemical\_45

# NICE Sodium Bicarbonate L.R.-500 Gm (S11929)

## INSTRUCTION MANUAL

Model: chemical\_45 | Brand: NICE

### PRODUCT OVERVIEW

Sodium bicarbonate, commonly known as baking soda, has the chemical formula  $\text{NaHCO}_3$ . It is a white crystalline powder with a slightly alkaline taste and is commonly used in various applications, including as a leavening agent in baking, as an antacid to relieve heartburn, and as a laboratory reagent. "L.R." stands for Laboratory Reagent, indicating that the grade of this sodium bicarbonate is suitable for laboratory use. L.R. grade chemicals are of higher purity compared to technical-grade chemicals and are commonly used in analytical and research laboratories.

### Key Applications

- In medical applications:** Sodium bicarbonate is used as an antacid to neutralize stomach acid and relieve heartburn or indigestion.
- In pH adjustments:** It is used to adjust the pH of solutions in laboratory experiments.
- In laboratory analyses:** Sodium bicarbonate is used as a reagent in various chemical tests and analytical procedures.
- General use:** Sodium bicarbonate, commonly known as baking soda, is used in baking, as an antacid, and for various household cleaning purposes.

### Product Images



Image showing the front label of the NICE Sodium Bicarbonate L.R. bottle, indicating "LABORATORY REAGENT" and chemical formula NaHCO<sub>3</sub>.



Image displaying the side of the bottle, detailing purity specifications such as Assay, Chloride, Sulphate, Iron, Arsenic, Lead, and Calcium content.

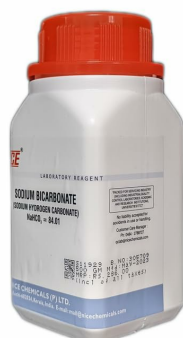
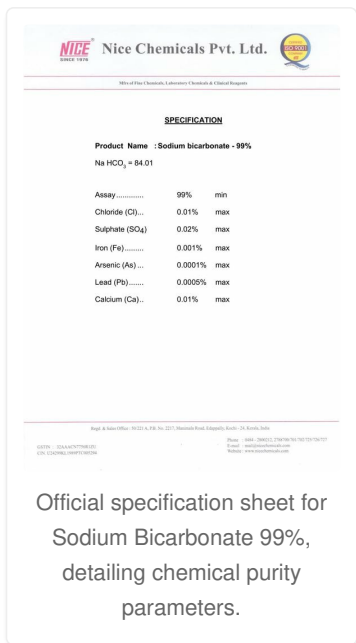


Image showing the side of the bottle with manufacturer details, customer care email, and a QR code.



## SETUP AND PREPARATION

This section outlines the necessary steps to prepare the Sodium Bicarbonate L.R. for laboratory use, ensuring safety and product integrity.

### Storage Guidelines

- Store in a cool, dry place, away from direct sunlight and moisture.
- Keep container tightly closed to prevent absorption of atmospheric carbon dioxide and moisture, which can affect purity.
- Avoid storage near strong acids or oxidizing agents to prevent unintended reactions.

### Handling Precautions

- Wear appropriate personal protective equipment (PPE), including safety glasses, a lab coat, and chemical-resistant gloves, when handling the product.
- Avoid inhalation of dust. Use in a well-ventilated area or under a fume hood to minimize exposure.
- In case of contact with skin or eyes, rinse immediately with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
- Do not ingest. If swallowed, rinse mouth with water and seek medical advice.

## OPERATING INSTRUCTIONS

Sodium Bicarbonate L.R. (Laboratory Reagent) grade is suitable for various analytical and research applications requiring high purity. Always refer to specific experimental protocols for precise usage and concentration requirements.

### General Laboratory Applications

1. **pH Adjustment:** To adjust the pH of acidic solutions, add small amounts of sodium bicarbonate while continuously monitoring the pH with a calibrated pH meter. Stir thoroughly after each addition.
2. **Buffer Preparation:** Sodium bicarbonate can be used to prepare bicarbonate buffer solutions, which are crucial for maintaining stable pH in biological and chemical systems. Consult standard laboratory manuals or specific protocols for accurate buffer recipes and concentrations.

3. **Reagent in Chemical Tests:** Utilize as specified in the protocol for various qualitative and quantitative chemical analyses, including titrations and precipitation reactions.

## Dissolving Instructions for Solution Preparation

- To prepare an aqueous solution, slowly add the desired amount of sodium bicarbonate powder to a measured volume of distilled or deionized water while stirring continuously.
- Ensure complete dissolution before using the solution. Gentle heating (e.g., in a warm water bath) may accelerate dissolution for higher concentrations, but is generally not required for typical laboratory concentrations.
- Store prepared solutions in tightly sealed containers to prevent CO<sub>2</sub> absorption from the air, which can alter pH.

## MAINTENANCE AND DISPOSAL

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### Container Maintenance

- After each use, ensure the container lid is securely fastened to prevent contamination, moisture absorption, and degradation of the product.
- Keep the exterior of the container clean and free from spills to maintain laboratory hygiene and prevent cross-contamination.
- Regularly inspect the container for any damage or signs of degradation.

### Disposal Guidelines

Dispose of unused or expired sodium bicarbonate and its solutions according to local environmental regulations and your laboratory's specific chemical waste disposal protocols. Sodium bicarbonate is generally considered low hazard, but specific disposal methods may vary based on local guidelines and any contaminants it may have come into contact with during use.

- **Small Quantities:** For small quantities of pure sodium bicarbonate or its dilute aqueous solutions, it can often be diluted further with water and flushed down the drain, provided local municipal wastewater regulations permit this.
- **Larger Quantities or Contaminated Material:** For larger quantities, or if the sodium bicarbonate has been contaminated with other hazardous substances, it must be treated as chemical waste. Consult with your institution's chemical waste management department or a licensed waste disposal contractor for proper disposal procedures.
- **Packaging:** Empty containers should be rinsed thoroughly and disposed of according to local recycling or waste disposal guidelines.

## TROUBLESHOOTING

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This section addresses common issues that may arise during the handling or use of NICE Sodium Bicarbonate L.R. and provides potential solutions.

### **Issue: Product appears clumpy, hardened, or has formed solid lumps.**

**Possible Cause:** Exposure to moisture or high humidity, leading to caking.

**Solution:** If the caking is minor, the material may still be usable after breaking up the lumps, provided its purity is not critical for the application. For sensitive applications or significant caking, the purity might be compromised, and it is advisable to use a fresh, uncompromised batch. Ensure the container is always tightly sealed after use.

and stored in a dry environment.

**Issue: Prepared solution pH is not as expected or unstable.**

**Possible Cause:** Incorrect weighing of the chemical, incomplete dissolution, contamination of glassware or water, or absorption of atmospheric CO2 by the solution.

**Solution:** Ensure accurate weighing of sodium bicarbonate. Stir thoroughly to ensure complete dissolution. Use high-purity distilled or deionized water and clean, calibrated glassware. Store prepared solutions in tightly sealed containers to minimize CO2 absorption from the air, which can lower the pH.

**Issue: Product shows signs of discoloration or foreign particles.**

**Possible Cause:** Contamination during handling or storage, or degradation due to improper storage conditions.

**Solution:** Do not use contaminated product for laboratory applications. Dispose of the contaminated material properly and use a fresh, uncontaminated batch. Review handling and storage procedures to prevent future contamination.

**SPECIFICATIONS**

Detailed specifications for NICE Sodium Bicarbonate L.R.-500 Gm (S11929), ensuring its suitability for laboratory and scientific applications.

**General Product Specifications**

Attribute	Value
Brand	NICE
Manufacturer	NICE CHEMICALS
Model Number	chemical_45
Item Weight	500 g
Net Quantity	500.00 Grams
Package Dimensions	14.5 x 14.5 x 6.5 cm
Item Form	Powder
Package Information	Bag (referring to the container type)
ASIN	B0CDWK5FK1
Date First Available	26 July 2023

**Chemical Purity Specifications (L.R. Grade)**

As per the manufacturer's specification sheet (visible in product image), the purity specifications for Sodium Bicarbonate 99% are:

Parameter	Specification
Assay	99% min
Chloride (Cl)	0.01% max

Parameter	Specification
Sulphate (SO4)	0.02% max
Iron (Fe)	0.001% max
Arsenic (As)	0.0001% max
Lead (Pb)	0.0005% max
Calcium (Ca)	0.01% max

## WARRANTY AND SUPPORT

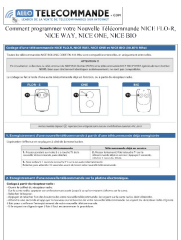




For product inquiries, technical support, or information regarding product quality and warranty, please contact NICE CHEMICALS directly using the details below.

- **Manufacturer:** NICE CHEMICALS (P) LTD.
- **Customer Care Email:** [qc@nicechemicals.com](mailto:qc@nicechemicals.com) (As per product packaging)
- **Phone:** 0464 - 2788727 (As per product packaging)
- **Address:** Manimala Road, Edappally, Kochi-682024, Kerala, India.
- For the most current contact details and official information, please refer to the product packaging or the official NICE CHEMICALS website.

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### Related Documents - chemical\_45

<div><div>Nice</div><div>BiDi-Awning</div><div><div>Module bidirectionnel pour moteur tubulaire extérieur</div><div><div>28</div><div>Instructions de montage et de mise en service</div></div></div></div>	<div><div><a href="#">Nice BiDi-Awning Bidirectional Module for External Tubular Motors - Installation and User Manual</a></div><div>Comprehensive guide for the Nice BiDi-Awning bidirectional module, detailing installation, setup, and operation for external tubular motors. Covers safety precautions, product description, wiring, transmitter memorization (Modes I and II), calibration, partial positions, virtual limit settings, and technical specifications.</div></div>
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	<p><a href="#">Nice ON3ELR Transmitter: Instructions and Technical Specifications</a></p> <p>This document provides instructions for the Nice ON3ELR transmitter, a bidirectional remote control for automation systems. It covers product description, application, transmitter functions, memorization procedures, status request, battery replacement, disposal, and technical specifications. Includes information in French, Spanish, and English.</p>
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	<p><a href="#">Nice EL-HR40 Remote Control Quick Start Guide</a></p> <p>A quick start guide for the Nice EL-HR40 Remote Control, detailing its features, functions, and limited warranty information.</p>
	<p><a href="#">Guide de Remplacement de la Carte d'Alimentation Nice FILO600</a></p> <p>Tutoriel étape par étape pour remplacer la carte d'alimentation de l'opérateur moteur Nice FILO600. Inclut les avertissements de sécurité, le contenu du kit et la procédure détaillée.</p>