

# TECHNICAL BULLETIN



19 Motivation Dve Wangara, WA, 6065 AUSTRALIA  
T +61 8 9302 4000 | FREE 1800 999 196 | F +61 8 9302 5000

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Date of Issue: 4/4/2016

Last revision: February 2016

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## SODIUM BICARBONATE

### SODIUM BICARBONATE (Technical Grade)

Contains >990g/kg SODIUM HYDROGEN CARBONATE

Sodium bicarbonate is not considered hazardous. It may be irritating to eyes.

**FIRST AID:** For advice, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor (at once). If swallowed, do NOT induce vomiting. If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

**SAFETY DIRECTIONS:** Avoid contact with skin and eyes. S22 Do not breathe dust.

Additional information is listed in the Material Safety Data Sheet

**IN AN EMERGENCY DIAL 000 POLICE OR FIRE BRIGADE**

BATCH NO.



CONTENTS kg nett



T: +61 8 9302 4000 E: sales@environex.net.au  
F: +61 8 9302 5000 W: www.environex.net.au  
FREE 1800 999 196 19 Motivation Drive, Wangara, WA 6065

### MATERIAL & FUNCTION

**SODIUM BICARBONATE** or sodium hydrogen carbonate is the chemical compound with the formula  $\text{NaHCO}_3$ . **SODIUM BICARBONATE** is a white crystalline powder. Other names are baking soda, bread soda, cooking soda, bicarbonate of soda. Colloquially, its name is shortened to sodium bicarb, bicarb soda, sodibic or bicarb. **SODIUM BICARBONATE** is one of the basic alkali chemicals and it has a wide variety of applications. It is applied to fields such as fibre, soap, paper, food, electricity, etc. It is also used as a solution for today's environmental pollution, as it is used to reduce water or air pollution.

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**SODIUM BICARBONATE** is an odourless and white crystalline powder of relatively low toxicity. It is not flammable and its dust is not explosive.

Natural **SODIUM BICARBONATE** is low in purity so it is usually manufactured by passing carbon dioxide through soda ash.

## APPLICATIONS

**SODIUM BICARBONATE** is widely used as a weak alkali buffer agent for supplementary feeds, a major raw material for baking powder as food additives and acid neutralizer agent after chromium tanning in leather manufacturing, as well as dye stuffs and pharmaceutical ingredients.

Food additives

■ **SODIUM BICARBONATE** is an essential ingredient in the food and beverage industry. Sodium Bicarbonate is acted as a chemical leavening agent for baked goods. **SODIUM BICARBONATE** releases carbon dioxide gas when it reacts with an acid or heated. With this application, **SODIUM BICARBONATE** is an essential ingredient in baking powders.

**SODIUM BICARBONATE** is a valuable buffer and neutralizer in beverages. It is used as a source of carbon dioxide in several soft drinks

■ Feed supplement

Buffer agent, **SODIUM BICARBONATE** is a universally recognized feed ingredient that functions as a unique safe, natural buffering system in the animal. **SODIUM BICARBONATE** acts as a buffer agent and antacid cattle feed ingredient.

Addition of **SODIUM BICARBONATE** to the animal feed tends to enhance the buffer supply of normal salivation, reduce rumen acidity by increasing pH and improve fibre digestion.

■ Pharmaceuticals

Digestive. **SODIUM BICARBONATE** has a long history as an antacid. **SODIUM BICARBONATE** is used as an antacid for short-term relief of stomach upset. **SODIUM BICARBONATE** plays a vital role in human health, as a therapeutic agent in itself, as an agent in the manufacture of other health-aids and as an essential component of the body physiological operation.

Haemodialysis. A highly pure grade of **SODIUM BICARBONATE** is used in haemodialysis. Patients in treatment are less stressed when bicarbonate is present in

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the dialysis fluid.

## ■Leather & textile

**SODIUM BICARBONATE** is a valuable agent in treating wool and silk fibres and dyeing and printing fabrics. The complex processes involved in producing natural leather require precise control of tanning solutions. **SODIUM BICARBONATE** is therefore used in tanning as a neutralizer, buffer, pretreating agent and cleaner.

## ■Specialty chemical manufacture

**SODIUM BICARBONATE** is essential to production of many chemicals. **SODIUM BICARBONATE** is used in synthesizing, processing and purifying chemicals and polymers, serving as a catalyst, as a neutralizing and buffering agent and a reactant.

## ■Rubber & plastics

**SODIUM BICARBONATE** is widely used in the rubber and plastics industry as a blowing agent. It releases carbon dioxide during the process in which the finished item is formed, causing it to expand into the desired foamed state.

## ■Pollution abatement

**SODIUM BICARBONATE** is a safe, easy-to-use chemical for biological control of waste-water treatment. **SODIUM BICARBONATE** helps maintain proper pH and alkalinity in waste water and it reduces biological oxygen demand and controls sulphide odours.

**SODIUM BICARBONATE** is proven to be among the most effective collectors of sulfur dioxide. When used for flue gas desulfurization, **SODIUM BICARBONATE** is injected directly into the flue gas ducts and it reacts with SO<sub>2</sub> to form sodium sulfate. The cleaned flue gas then exits through the stack.

## ■Deodorizers

**SODIUM BICARBONATE** has odour absorbent properties and the deodorizers are used in carpet and room, refrigerator, also garbage containers. Highly effective and inexpensive, **SODIUM BICARBONATE** absorbs smoke and musty odours.

## ■Others

Fire extinguishers - **SODIUM BICARBONATE** is also used in several kinds of dry chemical fire extinguishers.

\*Abstergent, lipid stabilizer, water treatment agent, detergent etc.

Dairy Usage: **SODIUM BICARBONATE** has been traditionally used as a buffer to maintain rumen pH, alleviate butterfat depression due to low fibre diets and aid fibre digestibility.

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Poultry Usage: In broiler and turkey diets **SODIUM BICARBONATE** is used as a sodium source to maintain electrolyte balance, improve heat stress tolerance and dry litter. In layer diets **SODIUM BICARBONATE** is used to improve eggshell quality, particularly in older hens and during heat stress. Powder and fine granular grades have a wide range of uses in foods, chemicals and pharmaceuticals. Granular grades are found in foods and doughnuts, cleaning compounds, pharmaceutical and many other products.

## **DIRECTION FOR USE**

Consult your technical representative

## **PACKAGING**

2 and 4 kg bottles, 25 kg bag (Technical Grade)  
500 kg bag (food Grade)

## **IMPORTANT NOTICE TO CUSTOMER**

*Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product which is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages resulting from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. **ALWAYS TEST FIRST.***