

## SODIUM ACETATE

Injection, USP

2 mEq/mL

Rx only

**Pharmacy Bulk Package.  
Not for Direct Infusion**

### **FOR ADDITIVE USE ONLY AFTER DILUTION IN IV FLUIDS.**

Glass Fliptop Vial

#### ***DESCRIPTION***

Sodium Acetate Injection, USP (2 mEq/mL) is a sterile, nonpyrogenic, *concentrated solution* of sodium acetate in water for injection. The solution is administered after dilution by the intravenous route as an electrolyte replenisher. It must not be administered undiluted. Each mL contains 164 mg of sodium acetate (anhydrous) which provides 2 mEq each of sodium ( $\text{Na}^+$ ) and acetate ( $\text{CH}_3\text{COO}^-$ ). The solution contains no bacteriostat, antimicrobial agent or added buffer. May contain acetic acid for pH adjustment; the pH is 6.5 (6.0 to 7.0). The osmolar concentration is 4 mOsmol/mL (calc.); specific gravity 1.081.

The solution is intended as an alternative to sodium chloride to provide sodium ion ( $\text{Na}^+$ ) for addition to large volume infusion fluids for intravenous use.

Sodium Acetate, USP anhydrous is chemically designated  $\text{CH}_3\text{COONa}$ , a hygroscopic powder very soluble in water.

A Pharmacy Bulk Package is a container of a sterile preparation for parenteral use that contains many single doses. The contents are intended for use in a pharmacy admixture program and are restricted to the preparation of admixtures for intravenous infusion.

#### ***CLINICAL PHARMACOLOGY***

Sodium is the principal cation of extracellular fluid. It comprises more than 90% of total cations at its normal plasma concentration of approximately 140 mEq/liter. The sodium ion exerts a primary role in controlling total body water and its distribution.

Acetate ( $\text{CH}_3\text{COO}^-$ ) is a hydrogen ion acceptor. It also serves as an alternate source of bicarbonate ( $\text{HCO}_3^-$ ) by metabolic conversion in the liver. This conversion has been shown to proceed readily, even in the presence of severe liver disease.

#### ***INDICATIONS AND USAGE***

Sodium Acetate Injection, USP (2 mEq/mL) is indicated as a source of sodium for addition to large volume intravenous fluids to prevent or correct hyponatremia in patients with restricted or no oral intake. It is also useful as an additive for preparing specific intravenous fluid formulas when the needs of the patient cannot be met by standard electrolyte or nutrient solutions.

#### ***CONTRAINDICATIONS***

Sodium Acetate Injection, USP (2 mEq/mL) is contraindicated in patients with hypernatremia or fluid retention.

#### ***WARNINGS***

Sodium Acetate Injection, USP (2 mEq/mL) must be diluted before use.

To avoid sodium overload and water retention, infuse sodium-containing solutions slowly.

Solutions containing sodium ions should be used with great care, if at all, in patients with congestive heart failure, severe renal insufficiency and in clinical states in which there exists edema with sodium retention.

In patients with diminished renal function, administration of solutions containing sodium ions may result in sodium retention.

Solutions containing acetate ions should be used with great care in patients with metabolic or respiratory alkalosis. Acetate should be administered with great care in those conditions in which there is an increased level or an impaired utilization of this ion, such as severe hepatic insufficiency.

The intravenous administration of this solution (after appropriate dilution) can cause fluid and/or solute overloading resulting in dilution of other serum electrolyte concentrations, overhydration, congested states or pulmonary edema. Excessive administration of potassium free solutions may result in significant hypokalemia.

**WARNING:** This product contains aluminum that may be toxic. Aluminum may reach toxic levels with prolonged parenteral administration if kidney function is impaired. Premature neonates are particularly at risk because their kidneys are immature, and they require large amounts of calcium and phosphate solutions, which contain aluminum.

Research indicates that patients with impaired kidney function, including premature neonates, who receive parenteral levels of aluminum at greater than 4 to 5 mcg/kg/day accumulate aluminum at levels associated with central nervous system and bone toxicity. Tissue loading may occur at even lower rates of administration.

### ***PRECAUTIONS***

Do not administer unless solution is clear and seal is intact. Discard unused portion.

Sodium replacement therapy should be guided primarily by the serum sodium level.

Caution should be exercised in administering sodium-containing solutions to patients with severe renal function impairment, cirrhosis, cardiac failure, or other edematous or sodium-retaining states, as well as in patients with oliguria or anuria.

Caution must be exercised in the administration of parenteral fluids, especially those containing sodium ions, to patients receiving corticosteroids or corticotropin.

Solutions containing acetate ions should be used with caution as excess administration may result in metabolic alkalosis.

**Pregnancy Category C.** Animal reproduction studies have not been conducted with Sodium Acetate Injection, USP. It is also not known whether Sodium Acetate Injection, USP can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Sodium Acetate Injection, USP should be given to a pregnant woman only if clearly needed.

**Pediatric Use:** Safety and effectiveness have been established in the age groups infant to adolescent.

**Geriatric Use:** An evaluation of current literature revealed no clinical experience identifying differences in response between elderly and younger patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

Sodium ions are known to be substantially excreted by the kidney, and the risk of toxic reactions may be greater in patients with impaired renal function. Because elderly patients are

more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function.

### **ADVERSE REACTIONS**

Sodium overload can occur with intravenous infusion of excessive amounts of sodium-containing solutions. (See **WARNINGS** and **PRECAUTIONS**.)

### **OVERDOSAGE**

In the event of overdosage, discontinue infusion containing sodium acetate immediately and institute corrective therapy as indicated to reduce elevated serum sodium levels, and restore acid-base balance if necessary. (See **WARNINGS**, **PRECAUTIONS** and **ADVERSE REACTIONS**.)

### **DOSAGE AND ADMINISTRATION**

Sodium Acetate Injection, USP (2 mEq/mL) is administered intravenously *only after dilution in a larger volume of fluid*. The dose and rate of administration are dependent upon the individual needs of the patient. Serum sodium should be monitored as a guide to dosage. Using aseptic technique, transfer the desired amount to other intravenous fluids to provide the appropriate number of milliequivalents (mEq) of sodium acetate.

Sodium Acetate Injection, USP (2 mEq/mL) in the Pharmacy Bulk Package is designed for use with manual, gravity flow operations and automated compounding devices for preparing intravenous nutritional admixtures. Admixtures must be stored under refrigeration and used within 24 hours after compounding.

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration. (See **PRECAUTIONS**.)

### **Directions for Dispensing From Pharmacy Bulk Package**

The Pharmacy Bulk Package is for use in the Pharmacy Admixtures Service only. For hanger application, peel off the paper liner from both ends of the tape hanger to expose  $\frac{3}{4}$  inch long adhesive portions. Adhere each end to the label on the bottle. The vials should be suspended as a unit in the laminar flow hood.

A single entry through the vial closure should be made with a sterile dispensing set or transfer device. Transfer individual doses to appropriate intravenous infusion solutions. Use of a syringe with needle is not recommended as it may cause leakage and multiple entries will increase the potential of microbial and particulate contamination.

The above process should be carried out under a laminar flow hood using aseptic technique. Discard any unused portion within 4 hours after initial closure entry.

### **HOW SUPPLIED**

Sodium Acetate Injection, USP (2 mEq/mL) is supplied in Pharmacy Bulk Packages as follows:

<b>Total Amounts</b>				
<b>NDC No.</b>	<b>Fill Volume</b>	<b>Na<sup>+</sup></b>	<b>Acetate</b>	<b>Concentration</b>
0409-3299-05	50 mL	100 mEq	100 mEq	16.4%
0409-3299-06	100 mL	200 mEq	200 mEq	16.4%

Store at 20 to 25°C (68 to 77°F). [See USP Controlled Room Temperature.]

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For current labeling information, please visit <https://www.fda.gov/drugsatfda>

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