



## Sodium Citrate, 3.8% w/v

**R014**

### Intended use

Sodium citrate is used as anticoagulant to prevent blood from clotting.

### Composition\*\*

<b>Ingredients</b>	-
Sodium citrate	3.80 g
Distilled water	100.0 ml
Final pH ( at 25°C)	7.9 ± 0.1

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

1. Dispense 0.5 ml of sodium citrate into test tube.
2. Add 4.5 ml blood and mix gently by inversion of the stoppered tube.

### Principle And Interpretation

Sodium citrate is effective as an anticoagulant due to its mild calcium-chelating properties. Sodium citrate addition to blood prevents it from clotting. For coagulation tests like prothrombin time test and partial thromboplastin time test, sodium citrate is the anticoagulant of choice because factor V is relatively stable in citrated blood.

### Type of specimen

Clinical specimen: Blood

### Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines. After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/ eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

### Limitations

1. The citrate concentration in 3.8% sodium citrate is higher and its use may result in falsely lengthened clotting times with calcium-dependent coagulation tests i.e., Prolonged prothrombin time (PT) and activated Partial Thromboplastin Time (aPTT) with slightly under filled samples and with samples with high hematocrits.

### Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature

## Quality Control

- **Appearance** : Colourless liquid.
- **Clarity** : Clear with no insoluble particles.
- **Reaction** : Reaction of the solution at 25°C. pH : 7.9 ± 0.1
- **Concentration** : 3.70% - 3.90%
- **Procedure** : Dispense 0.5 ml of sodium citrate into test tube. Add 4.5 ml blood and mix gently by inversion of the stoppered tube.
- **Results** : Under high power magnification, count the cells in ruled area.

## Storage and Shelf Life

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques.

## Reference

1. Bauer J.D., Ackermann P.G. and Toro G.(Eds.),1974,Clinical Laboratory Methods, 8th ed, The C.V. Mosby Co, St. Louis.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
3. Jorgensen, J.H, Pfaller, M.A, Carroll, K.C, Funke, G, Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Reneke, J et al. Prolonged prothrombin time and activated partial thromboplastin time due to underfilled specimen tubes with 109 mmol/L (3.2%) citrate anticoagulant. Am J Clin Pathol. 1998; 109:754-757.



Storage temperature



Do not use if package is damaged



In vitro diagnostic medical device



CE Marking



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