



# Orange Serum Broth (OSB) Vial

Product Number: NF-OSB



Pictured: NF-OSB vial uninoculated (left) and inoculated vial (right).

## Introduction

The Orange Serum Broth Vial, 9 mL (NF-OSB) detects acid-tolerant microorganism contamination in fruit juices, fruit extracts, citrus concentrations, and other low pH products. As organisms grow in the broth medium, the carbon dioxide (CO<sub>2</sub>) diffuses through a membrane layer into a soft agar plug containing a dye indicator. The Soleris® Next Generation (NG) instrument reads the color change in the dye. The membrane layer also serves as a barrier, eliminating product interference with the reading frame.

## Materials Required

1. NF-OSB, Orange Serum Broth Vial (9 mL)
2. Butterfield's Phosphate Buffer, 99 mL (BPB-99)

## Dependent on Sample Tested

1. Sterile 10% Tartaric Acid Solution
2. Sterile 1.0M HCl
3. Sterile needle and syringe
4. pH meter or pH paper

## Vial Specifications

1. Vial pH is 5.6 ± 0.2
2. Vial sample capacity up to 1.0 mL

## Sample Preparation

1. Dilute to Specification – For Non-acidified Vials
  - a. Add the sample directly or prepare a 1:10 dilution by adding 11 g of sample to 99 mL of sterile Butterfield's Phosphate Buffer.
    - i. If using the dilute-to-specification method, complete the dilution required.
2. Presence/Absence Testing – For Acidified Vials
  - a. Incubate the product for 48 hours at 30°C.

## Vial Preparation

1. Remove NF-OSB vials from the refrigerator and allow them to equilibrate to room temperature.
2. If additional pH adjustment is needed, add 0.5 mL of the 10% tartaric acid or 1.0M HCl to the vial.



### Inoculation of Vial – Dilute to Specification

1. Inoculate the vial with no more than 1.0 mL and no less than 0.10 mL of the sample to be tested. If using the dilute-to-specification method, add the volume of the appropriate dilution required.
2. Cap the vial and gently invert three times to mix the sample. Keep the cap tight.
3. Insert the vial into the Soleris NG instrument set at 30°C or as indicated by the trainer. The incubation temperature and test duration can be optimized within the listed ranges for different product types. It is not recommended to adjust parameters without consulting NEOGEN® Technical Services.

### Inoculation of Vial – Presence/Absence Testing

1. Remove the product from the incubator.
2. Aseptically remove 1.0 mL from the product container with a sterile needle and syringe.
3. Inoculate the vial with 1.0 mL.
4. Cap the vial and gently invert three times to mix the sample. Keep the cap tight.
5. Insert the vial into the Soleris NG instrument set at 30°C or as indicated by the trainer. The incubation temperature and test duration can be optimized within the listed ranges for different product types. It is not recommended to adjust parameters without consulting NEOGEN Technical Services.

### Algorithm Utilized – For Soleris NG

Test	Threshold	Skip	Shuteye	Test Duration	Temperature
NF-OSB	10	1	50	48 hours	30°C

### Disclaimers:

Information provided is based on validation procedures that NEOGEN performed in NEOGEN laboratories. Deviation from procedures are possible but should be discussed with NEOGEN Technical Services.

The appearance of the vials should be inspected before use.

Certain product matrices may require new parameters. For more information, contact NEOGEN Technical Services.

If shuteye detections are observed, the threshold may need to be adjusted based on the product matrix. Certain product matrices may require new parameter adjustments, including increased test duration. For more information, contact NEOGEN Technical Services.

