

## Organic Standard Method

### Purpose:

To prepare a stock solution of an organic phosphate standard to use in digestions.

### Procedure:

1. Place a 50 mL beaker on the scale and tare
2. Add ~9.9 g of organic phosphate sugar (D-Fructose-6-phosphate Disodium salt) to the beaker
3. Oven-dry at 40 °C overnight
4. Weigh dried standard and place 9.8179 g in a 1000 mL flask.
5. Fill with 1000 mL DI water
6. Store in glass container in refrigerator (4°C).

### Stock Solution Calculations

Final volume: 1000 mL

Desired concentration: 1000 mg P/L (as organic P)

Desired weight of dried standard: 9.8179 g

P = 30.9737 atomic weight

D-Fructose-6-phosphate Disodium salt m.w. = 304.1 g/mol

$$\frac{304.1 \text{ g/mol}}{30.9737 \text{ u}} = 9.8179 \text{ g D-Fructose-6-phosphate Disodium salt in 1 L DI water}$$

*Alternatively,*

→ 0.9818 g D-Fructose-6-phosphate Disodium salt in 100 mL DI water