ASM Solution 2

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Abstract

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Guidelines

First, prepare primary stock solutions. Glassware should be acid-washed and rinsed well with dH_2O before use. If unable to measure small quantities accurately, either scale up the recipe or prepare additional stock solutions of the individual compounds.

Before start

Prepare primary stock solutions (in dH_2O) of the following:

- $NaNO_3$: 75.00 g/L
- $NaH_2PO_4 \cdot H_2O$: 5.00 g/L
- $Na_2SiO_3 \cdot 9HO$: 30.00 g/L (Note: this will only be used if phytoplankton require silicates)

Filter sterilize through a 0.2 micron PES membrane and store frozen in 1 mL aliquots.

Protocol

Step 1.
Measure 500 mL dH_2O into a 1 L glass bottle.

Step 2.
Dissolve 4.796 g $MgCl_2 \cdot 6H_2O$ into bottle.

Step 3.
Dissolve 0.672 g $CaCl_2 \cdot 2H_2O$ into bottle.

Step 4.
Dissolve 10.95 mg $SrCl_2 \cdot 6H_2O$ into bottle.

Step 5.
$NaNO_3$: 1 ml primary stock solution (75.00 g/L)

Step 6.
$NaH_2PO_4 \cdot H_2O$: 1 ml primary stock solution (5.00 g/L)

Step 7.

$Na_2SiO_3 \cdot 9H_2O$ (optional): 1 ml primary stock solution (30.00 g/L)

NOTES

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Only add if phytoplankton requires silicates.

Step 8.

Mix final solution well and set aside until ready to autoclave.