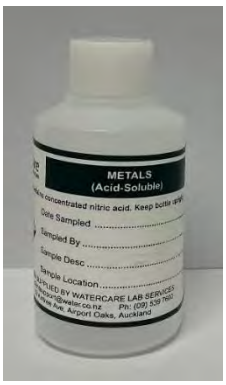
Watercare Laboratory Services Bottle Guide (Liquids)

Contents

Metals

M1. 100mL Plastic - Nitric Acid Preserved (Acid-Soluble)



Used for: Acid-soluble metals

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly

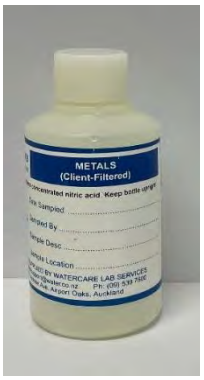
Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid preservative

Bottle code: MET-AC-SOL_0100

Label:

M2. 100mL Plastic - Nitric Acid Preserved (Client-Filtered)



Used for: Soluble metals (where the sample has been filtered in the field)

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly. Note: if using our filters, refer to M8.

Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid

Bottle code: MET-MF-CF_0100

Label:

M3. 100mL Plastic - Ammonium Buffer Ph 10 Preserved (Cr6+)

Used for: Chromium 6+

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly

Preservative: Ammonium buffer pH 10

Safety: Sample bottle contains ammonium buffer. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid

Bottle code: CR-HEX_0100

Label:

M4. 250mL Plastic – Nitric Acid Treated (Lab-Filtered Metals)

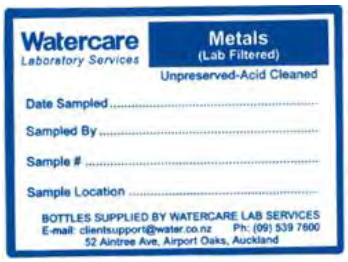
Used for: Soluble metals

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up to the neck of the bottle leaving a small headspace

Safety: Sample bottle washed and treated with nitric acid

Bottle code: MET-DI-T_0250

Label:



M5. 100mL Plastic - Nitric Acid Preserved (Total Metals)

Used for: Total metals (e.g. lead, copper, nickel, total hardness)

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly

Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid

Bottle code: MET-TO-T_0100

Label:

M6. 100mL Plastic - Nitric Acid Preserved (Ultra Trace Total Metals)

Used for: Ultra trace metals

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly. Keep bottle double bagged

Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid. Keep double bagged on transport back to lab

Bottle code: MET-TO-U_0100

Label:

M7. 100mL Plastic – Nitric Acid Preserved (Ultra Trace Filtered Metals)

Used for: Ultra trace metals

Sampling info: Do not rinse prior to filling. Use a field filtration kit (M8) to filter the sample directly into the bottle to the neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly. Keep bottle double bagged.

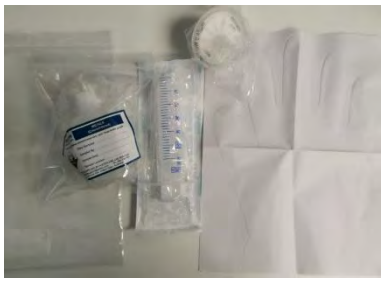
Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid. Keep double bagged on transport back to lab

Bottle code: MET-DI-U_0100

Label:

M8. Field/Ultra Trace Filtration Kit

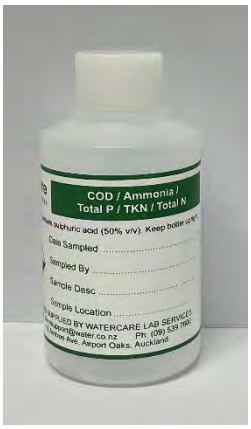


Used for: Filtering sample into ultra-trace metals container or field filtration

Sampling info: Don provided gloves from the bag. Pull plunger out of the syringe and attach the filter to the end of the syringe. Fill the syringe with sample up to the 60mL mark and place the plunger back into the syringe. Push down on the plunger over a sink or the environment until a few drops appear at the end of the filter. Push out ~1mL into the sink/environment before filtering the rest into the ultra-trace or field filtered container

General Chemistry

G1. 100mL Plastic – Sulphuric Acid Preserved



Used for: COD, Total and Reactive Phosphorus, Total Kjeldahl Nitrogen, Ammonia, Total Nitrogen

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly

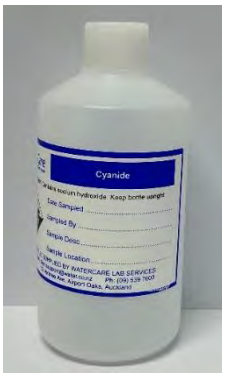
Preservative: Sulphuric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid preservative

Bottle code: H2SO4_0100

Label:

G2. 250mL Plastic – Sodium Hydroxide Preserved



Used for: Cyanide

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly

Preservative: Sodium hydroxide

Safety: Sample bottle contains concentrated base. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid preservative

Bottle code: NAOH_0250

G3. 300mL Glass Stopper Jar

Used for: Dissolved oxygen

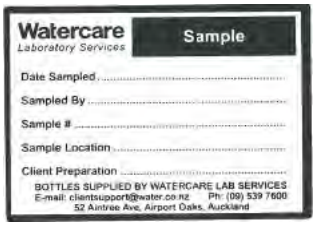
Sampling info: Fill glass jar up slowly, minimising aeration, halfway up the neck. Tap the bottle if necessary to remove any air bubbles. Add the contents of the manganese solution (reagent #1) to the bottle followed by the contents of the alkali solution (reagent #2). Insert the stopper and ensure all air is evacuated from the bottle. Mix by **INVERSION** a few times

Safety: Reagent #2 is highly alkaline and corrosive to the skin. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Handle both reagents with great care

Transport info: Sample must be received and tested at the lab on the same day

Bottle code: DO_0300

Label:



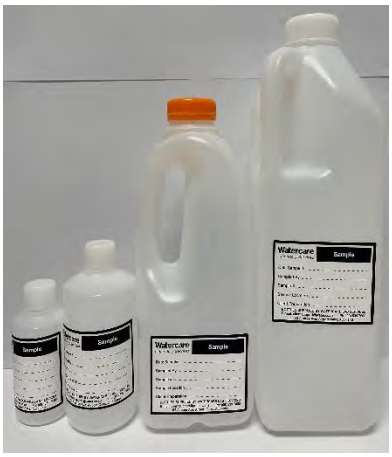
G4. 100mL to 2L Plastic

Used for: pH, turbidity, colour, BOD, suspended solids, anions, salinity, UV, ultra-trace suspended solids and more

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up to the neck of the bottle leaving a small headspace

Transport info: Samples for general testing often are required to arrive at the lab within a certain timeframe for the testing to be viable. Enquire with the laboratory team to ensure you adhere to the method's recommend holding time

Bottle code: GENERAL_0100 to GENERAL_2000 SUSPSOL_2000



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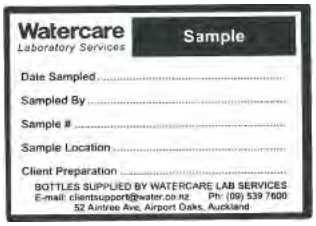


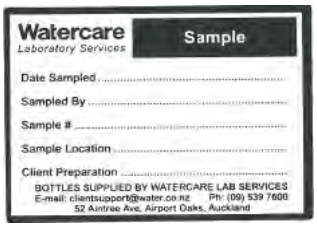
G5. 250mL to 2L Plastic (White with Red Lid)

Used for: Water/solid samples sensitive to light (e.g. Chlorophyll)

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up to the neck of the bottle leaving a small headspace

Bottle code: GENERAL-O_0250 to GENERAL-O_2000

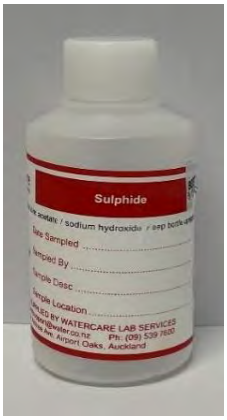
Label:



G6. 100mL Plastic – Ethylenediamine Preserved

Used for: Oxyhalides
Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly
Preservative: Ethylenediamine
Safety: Sample bottle contains ethylenediamine preservative. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains preservative
Bottle code: ETDIAM_0100
Label:

G7. 100mL Plastic – Zinc Acetate and Sodium Hydroxide Preserved



Used for: Sulphide
Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly
Preservative: Zinc acetate and sodium hydroxide
Safety: Sample bottle contains concentrated base. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains preservative
Bottle code: ZNAC-NAOH_0100
Label:

G8. 100mL Plastic – Disodium Ethylene Diamine Tetra Acetic Acid Preserved

Used for Sulphite
Sampling info Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly
Preservative Disodium ethylene diamine tetra acetic acid (Na_2EDTA)
Safety: Sample bottle contains disodium ethylene diamine tetra acetic acid. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains preservative
Bottle code: EDTA_0100
Label:

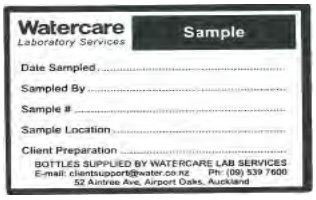
G9. 100mL Plastic – Cyanogen Chloride

Used for: Cyanogen Chloride

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up without leaving any headspace. This can be achieved by also filling the lid with sample and quickly screwing it down on the full bottle.

Bottle code: CNCL_0100

Label:



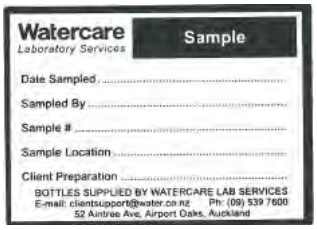
G10. 1L Sterile Glass – x2 (Taste and Odour – Sensory Panel)

Used for: Taste and Odour by Sensory evaluation

Sampling info: Rinse and fill 2x 1L sterile glass bottles, leaving minimal headspace. To be analysed within 24 hours of sample. Bottle water product can be delivered in respective packaging and analysed anytime

Bottle code: STER_1000

Label:



Microbiology

MI1. 400mL and 1L Sterile Plastic – Iodine Preserved

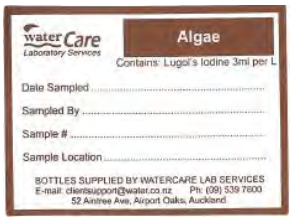
Used for: Algae

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the top of the bottle. Ensure the lid is screwed down firmly

Preservative: Iodine

Bottle code: ALU-LU-I_0400 ALU-LU-I_1000

Label:



MI2. 100mL to 400mL Sterile Plastic – Sodium Thiosulphate Preserved (Bacto)

Used for: Potable water microbiology (e.g. E. coli, total coliforms, HPC) on chlorinated water

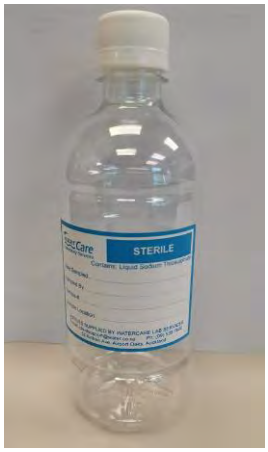
Sampling info: Do **NOT** rinse prior to filling. Ensure aseptic technique is used and fill to just below the neck of the bottle, leaving some head space at the top (do not overfill). Ensure the lid is correctly seated on the bottle and screw down firmly. NB: these bottles contain a small volume of liquid sodium thiosulphate to remove chlorine

Transport info: Sample must be received at the lab within 24 hours of sample collection. Keep samples below 10°C. For drinking water, please refer to SFSA36.

Bottle code: STER-NATH_0120 STER-NATH_0250 STER-NATH_0400

Label:

MI3. 500mL Sterile Plastic – Sodium Thiosulphate Preserved (Pools)



Used for: Swimming pool sampling

Sampling info: Do **NOT** rinse prior to filling. Ensure aseptic technique is used and fill to just below the neck of the bottle, leaving some head space at the top (do not overfill). Ensure the lid is correctly seated on the bottle and screw down firmly. NB: These bottles contain a small volume of liquid sodium thiosulphate to remove chlorine

Transport info: Sample must be received at the lab within 24 hours of sample collection. Keep samples below 10°C

Bottle code: STER-NATH_0500

Label:

MI4. 250mL to 1L Sterile Glass – (Bacto)

Used for: Microbiology on raw or unchlorinated water

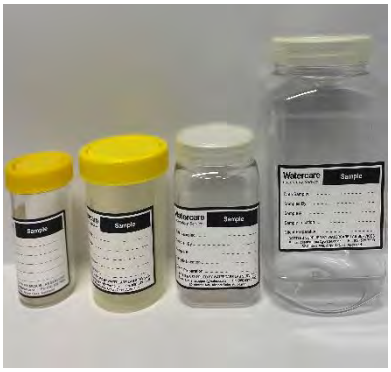
Sampling info: Do **NOT** rinse prior to filling. Ensure aseptic technique is used and fill up to the neck of the bottle leaving some head space at the top (do not overfill). NB: these bottles are also date stamped as their sterility expires (3 months), so check this before sampling

Transport info: Sample must be received at the lab within 24 hours of sample collection. Keep samples below 10°C

Bottle code: STER_0250 STER_0500 STER_1000

Label:

MI5. 120mL to 1L Sterile Plastic



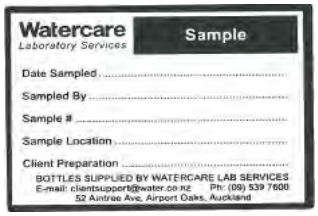
Used for: Non-chlorinated potable water microbiology (e.g. E. coli, total coliforms, HPC, phage)

Sampling info: Do **NOT** rinse prior to filling. Ensure aseptic technique is used and fill to just below the neck of the bottle, leaving some head space at the top (do not overfill). Ensure the lid is correctly seated on the bottle and screw down firmly

Transport info: Sample must be received at the lab within 24 hours of sample collection. Keep samples below 10°C

Bottle code: STER_0120 STER_250 PHAGE_0250 STER_0400 STER_1000

Label:



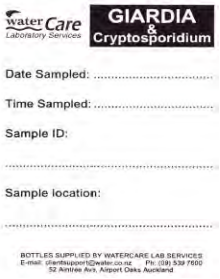
MI6. 5L Plastic (White with Red Lid) – x3

Used for: Giardia

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up to the neck of the bottle leaving a small headspace. To recap; remove black ring stopper and skirt to ensure the lid can be secured firmly (otherwise sample will leak). Keep samples below 20°C

Bottle code: GIARDIA-L_5000

Label:



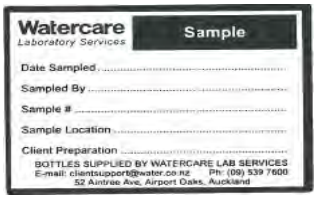
MI7. 10L Plastic (White with Red Lid) – x2

Used for: Helminths, virus

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up to the neck of the bottle leaving a small headspace. To recap; remove black ring stopper and skirt to ensure the lid can be secured firmly (otherwise sample will leak). Virus and helminths containers are reusable and kept on the micro storeroom shelves

Bottle code: HELMINTH_10000 VIRUS-L_10000

Label:



MI8. Giardia Filtration Kit

Used for: Giardia – clean water sites only

Sampling info: Filter, tubing, gauge, and field paperwork will arrive in a chilly bin. Further instructions on how to sample are also supplied in the chilly bin. Ensure field paperwork is returned with sample

Transport info: Return all equipment with sample including filter and field paperwork. Ensure sample is kept below 20°C

Bottle code: CENT_220

Organic Chemistry

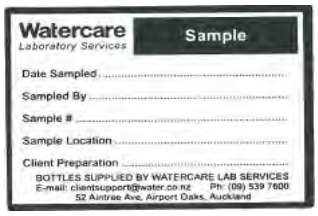
O1. 100mL Amber Glass

Used for: Cyanotoxins, TOC, DOC

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up to the top ensuring all air is evacuated from the sample. This is best achieved by filling the bottle as full as possible and placing on a flat surface. Fill the lid with sample water and pour onto the bottle until a visible meniscus has formed on the top of the bottle. Hold the lid securely and quickly screw it down onto the bottle. Invert the bottle to check for air bubbles. Repeat if necessary, until there is no air visible

Bottle code: ORG-L_0100

Label:



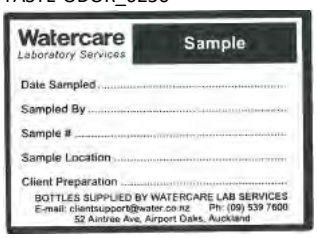
O2. 250mL Amber Glass – x2

Used for: Taste and odour

Sampling info: Rinse sample bottle with a small amount of the sample water and then fill to the top ensuring all air is evacuated from the sample. This is best achieved by filling the bottle as full as possible and placing on a flat surface. Ensure the septum in the lid is intact before filling it with sample water. Pour sample into the bottle until a visible meniscus has formed on the top of the bottle. Hold the lid securely and quickly screw it down onto the bottle. Invert the bottle to check for air bubbles. Repeat if necessary, until there is no air visible

Bottle code: TASTE-ODOR_0250

Label:



O3. 1L Amber Glass

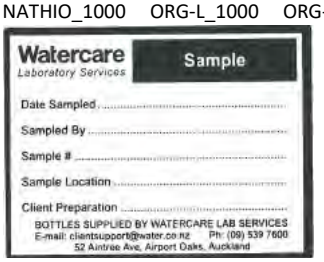
Used for: Semi Volatile Organic Compounds, Polyaromatic Hydrocarbons, Phenols, Organochlorine Pesticides, ONOPs and more

Sampling info: Rinse the bottle with a small amount of sample water (unless the bottle is preserved with sodium thiosulphate) and then fill to the top ensuring all air is evacuated from the sample. To achieve this fill with sample water until a visible meniscus has formed on the top of the bottle (NB: for this size bottle it is best to place it on a flat surface and fill the last bit by pouring water from the lid). Hold the lid securely and quickly screw it down. Invert the bottle to check for air bubbles. Repeat if necessary, until there is no air visible. Ensure the lid is screwed down firmly

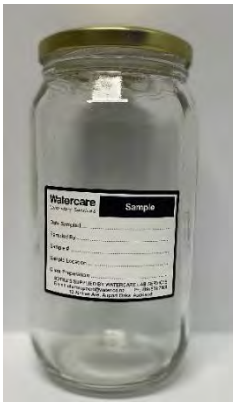
Preservation: Sodium thiosulphate for treated water (only for the NATHIO_1000 test)

Bottle code: NATHIO_1000 ORG-L_1000 ORG-L_1000_ONOP ORG-L_1000_SVOC

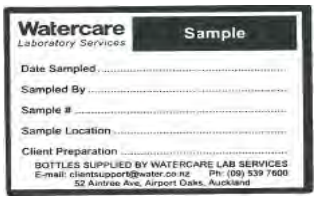
Label:



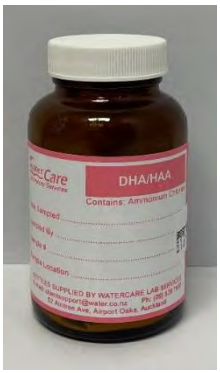
O4. 1L Glass



Used for: Oil and grease, TPH
Sampling info: Rinse sample jar with a small amount of the water to be sampled and then fill up to the top of the bottle
Bottle code: HC_1000 TPH_1000
Label:



O5. 100mL Amber Glass – Ammonium Chloride Preserved



Use for: Disinfection by-products (DHA, HAA), Oxyhalides (Trace level), Acrylamide
Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the top ensuring all air is evacuated from the sample. To achieve this fill with sample water until a visible meniscus has formed on the top of the bottle. Hold the lid securely and quickly screw it down. Invert the bottle to check for air bubbles. Repeat if necessary, until there is no air visible. Ensure the lid is screwed down firmly
Preservative: Ammonium chloride
Bottle code: NH4CL_0100
Label:

O6. 250mL plastic - GLY

Used for: Glyphosate, AMPA, 1080
Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up to the neck of the bottle leaving a small headspace
Transport info: Samples for 1080 must be chilled when transporting
Bottle code: ORG-L_0250_GLY
Label:

O7. 40mL glass vials – x2

Used for: Volatile organics (VOC, THMs, BTEX), Alcohol, Formaldehyde

Sampling info: As these vials contain preservative, do not rinse prior to filling. Fill the 2 vials with sample water to the top ensuring all air is evacuated from the sample. To achieve this fill with sample water until a visible meniscus has formed on the top of the vial. Ensure the septum in the lid is intact before filling with sample water and quickly screwing it down on the vial. Invert the vial to check for air bubbles. Repeat, if necessary, until there is no air visible. Ensure the lid is screwed down firmly

Preservative: Sodium thiosulphate

Bottle code: ORG-VIAL_0040

Label: