

UCMR3 300.1 (Chlorate) Sampling Instructions for Treatment Plants Using Chlorine Dioxide

- a) FREEZE GELPAKS UPON RECEIPT OF SAMPLE KIT AND ADD FROZEN GELPAKS TO THE COOLER ON THE DAY OF SAMPLING.**

b) WHEN SAMPLING, BRING OTHER AVAILABLE BAGGED WET ICE IN SEALED BAGS OR FROZEN GELPAKS TO CHILL SAMPLES DURING SAMPLE COLLECTION.

2. Supplies needed for sample collection:

Supplies	# of Supplies	Size	Bottle Type	Preservative
@UCMR3 Chlorate Bottle (provided in kit)	1	125mL	High-density polyethylene (HDPE) bottle with polypropylene screw-cap lined with polyethylene	0.6mL of 1.12% EDA (v/v)
Unlabeled Empty HDPE Bottle (provided in kit)	1	250mL	High-density polyethylene (HDPE) bottle with polypropylene screw-cap lined with polyethylene	None
PVC Tube (provided in kit)	1	-----	-----	-----
Glass Pasteur Pipette (provided in kit)	1	-----	-----	-----
Small Disposable Helium Tank	1	-----	Can often be found at party supply stores	-----



3. Put on nitrile gloves. If sampling from faucet, remove the aerator and screen.

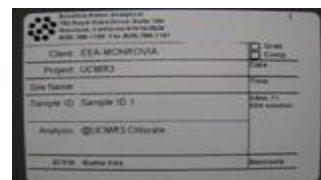


4. Open the tap and let the water of the sample source run at fast flow for approximately 5 minutes.

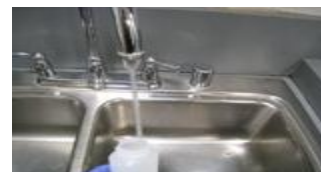


5. Use indelible ink (pen included in kit) to clearly identify the sample bottles with the information listed below.

- Sample ID
- Date and Time of collection
- Source of sample, if not already on label
- Preservative used, if not already on label
- Analysis required, if not already on label



6. Slow water flow to thickness of a pencil (to minimize splashing) and fill the unlabeled 250mL empty HDPE bottle.



7. Fill the unlabeled 250mL empty HDPE bottle to **approximately 3/4 full** with sample, making sure the mouth of the bottle does not come in contact with anything other than sample water.



*Note: The sample bottle is colored to show fill line for picture purposes only.

8. Insert the glass pasteur pipette to the bottom of the bottle and adjust gas flow to produce a steady flow of bubbles for approximately 10-15 minutes. The chlorine dioxide should be effectively removed from the sample after 10-15 minutes of sparging. Turn off helium and remove the Pasteur pipette.



NOTE: PER EPA YOU MUST DO THE SPARGING AT THE FIELD SITE – DO NOT WAIT UNTIL YOU GET TO THE PLANT TO DO IT.

9. Pour the sparged sample into the EDA preserved 125mL @UCMR3 Chlorate sample bottle up to the **bottom of the neck**, taking care not to flush out preservatives and making sure the mouth of the bottle does not come in contact with anything other than sample water.



Fill up to bottom of neck

10. Cap and invert the bottles at least 5 times to mix the sample with the preservative.



SHIPPING SAMPLES AND STORAGE

1. If shipping samples on the same day of sampling, chill samples until at or below 10°C by exchanging the ice used during sampling with available sealed bag of fresh frozen ice or frozen gelpaks.
2. **Pack chilled samples** in a cooler with FROZEN gelpaks.
3. Complete the Chain of Custody during sample collection. Place completed Kit Order and completed Chain of Custody in a ziplock bag in the cooler on top of packing material. The following information is required on the completed Chain of Custody.

- Collector's name	-Date and time of collection
-Unique field sample ID (from UCMR database)	-Comments about the sample, if applicable
-PWSID #	-Sample type (EP, MR, or FB)
-Facility ID # (from UCMR database)	-Sample Event Number (SE1, SE2, SE3, SE4)
4. **Ship via overnight service such as FEDEX, UPS, or DHL, etc.** Sample must not exceed 10°C during transit.
5. Samples **MUST** arrive at lab within 48 hours of sampling at or less than 10°C, greater than 0°C (not frozen).
6. **If samples are received more than 48 hours after sampling they must be at or less than 6°C, greater than 0°C (not frozen).**
7. If samples are received on the same day as collection, temperature may be greater than 10°C with evidence of cooling.
8. Maximum **HOLDING TIME FOR SAMPLES IS 28 DAYS** after time of collection.
9. Alternatively, cool the samples down by placing them **overnight** in a cooler with frozen refrigerant packs or water ice, or in a refrigerator (store chilled for at least 12 hours before packing for shipment). Maintain the samples cold until repacked in the cooler for shipment to the lab.

ADDITIONAL NOTES

1. No Field Blank (FB) required.
2. Do not composite (i.e., combine, mix or blend) UCMR3 samples.
3. Collect samples early enough in the day to allow adequate time to cool and to send those samples for overnight delivery to the laboratory, if not refrigerated and stored overnight before shipping.
4. Try to collect only on a Monday, Tuesday or Wednesday and ship no later than Thursday of each week, and try to **NOT** collect samples on Friday, Saturday, or Sunday unless special arrangements have been made for the receipt of samples at the laboratory within 48-hours of collection.