



Glutaraldehyde Test Kit

GT-1 (2587200)

DOC326.97.00044

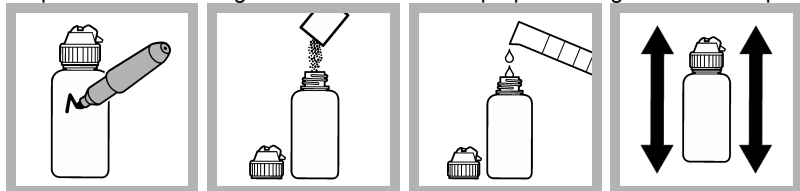
Test preparation

CAUTION: Review the Safety Data Sheets (MSDS/SDS) for the chemicals that are used. Use the recommended personal protective equipment.

- Put the color disc on the center pin in the color comparator box (numbers to the front).
- Use sunlight or a lamp as a light source to find the color match with the color comparator box.
- Do not use deionized water because aldehydes from ion-exchange resins can contaminate the sample. For dilutions, use the supplied ultrapure water, distilled water or reverse-osmosis (RO) water.
- Rinse the tubes and bottles with sample before the test. Rinse the tubes and bottles with the supplied ultrapure water, distilled water or reverse-osmosis (RO) water after the test.
- The reagent labels can show a sample volume that is not applicable to this method. Ignore the sample volume on the reagent labels.
- Keep the prepared MBTH and Ferric Chloride reagents at room temperature for a maximum of one week.
- If the color match is between two segments, use the value that is in the middle of the two segments.
- If the color disc becomes wet internally, pull apart the flat plastic sides to open the color disc. Remove the thin inner disc. Dry all parts with a soft cloth. Assemble when fully dry.

Prepare the MBTH reagent

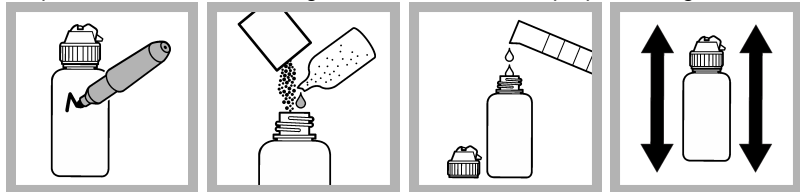
Prepare the MBTH reagent as follows. Use the prepared reagent in the test procedure.



1. Write "MBTH" on a clean bottle.
2. Add one MBTH Reagent Powder Pillow.
3. Use a graduated cylinder to add 100 mL of distilled water.
4. Tighten the cap on the bottle. Shake to mix.

Prepare the ferric chloride reagent

Prepare the ferric chloride reagent as follows. Use the prepared reagent in the test procedure.



1. Write "Ferric Chloride" on a clean bottle.
2. Add one Dissolved Oxygen 3 Reagent Powder Pillow and one Ferric Chloride Reagent Ampule.
3. Use a graduated cylinder to add 100 mL of distilled water.
4. Tighten the cap on the bottle. Shake to mix.

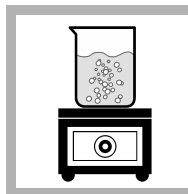
Replacement items

Description	Unit	Item no.
Dissolved Oxygen 3 Reagent Powder Pillows	100/pkg	98799
Ferric Chloride Reagent, 5-mL ampule	20/pkg	2171820
MBTH Powder Pillows	100/pkg	2257169
Water, ultrapure	100 mL	2594642
Ampule Breaker, 10-mL Voluette® Ampules	each	2196800
Beaker, 150 mL, glass	each	50044H
Bottle, poly, 177 mL (6 oz)	each	590900
Brush, test tube	each	69000
Clamp, test tube holder	each	63400
Clippers	each	96800
Color disc, glutaraldehyde, 0.5–2800 mg/L	each	9267000
Color comparator box	each	173200
Laboratory pen, permanent marker	each	2092000
Mixing cylinder, graduated, 10 mL	each	2088638
Mixing cylinder, graduated, 100 mL, tall form	each	2088642
Sprinkler cap, for poly bottle	each	591000
Glass viewing tubes, 18 mm	6/pkg	173006
Stoppers for 18-mm glass tubes and AccuVac Ampuls	6/pkg	173106
Syringe, Luer-Lok® Tip, 1 cc (mL)	each	1226300

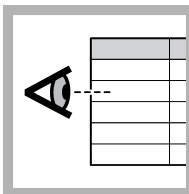
Optional items

Description	Unit	Item no.
Hot plate, 4-inch round, 120 V	each	1206701
Hot plate, 4 x 4-inch, digital, 115 V, North American plug	each	2881400

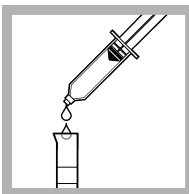
Test procedure—Glutaraldehyde (0–2800 mg/L)



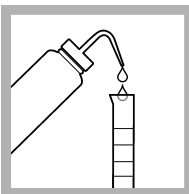
1. Add water to a glass beaker. Boil the water for use in step 13.



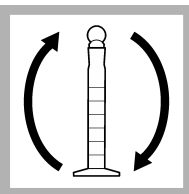
2. Select the sample volume and mixing cylinder for dilution from Table 1. If no dilution, go to step 7.



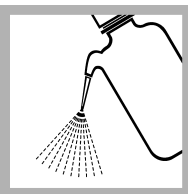
3. Use the syringe to measure the sample volume. Add the sample to the mixing cylinder.



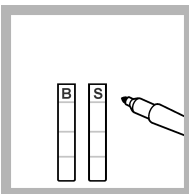
4. Dilute the sample to the applicable (10-mL or 100-mL) mark with distilled water.



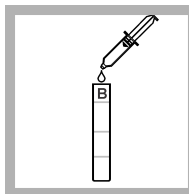
5. Put the stopper on the mixing cylinder. Invert the mixing cylinder several times to mix.



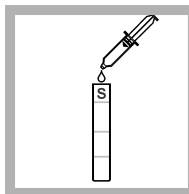
6. Rinse the syringe with distilled water.



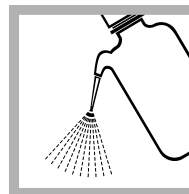
7. Write "B" for blank on one tube. Write "S" for sample on a second tube.



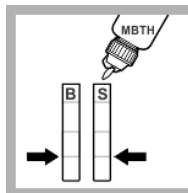
8. Use the syringe to add 1 mL of distilled water to the blank tube.



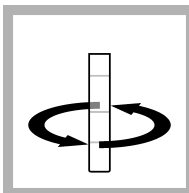
9. Use the syringe to add 1 mL of sample, or diluted sample if applicable, to the sample tube.



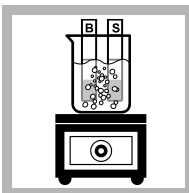
10. Rinse the syringe with distilled water.



11. Fill each tube to the first line (5 mL) with the prepared MBTH reagent.



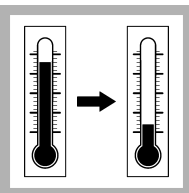
12. Swirl to mix.



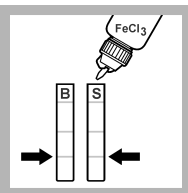
13. Put the tubes in the boiling water.



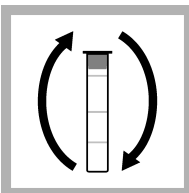
14. Boil the tubes for 2.5 minutes.



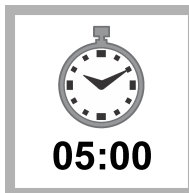
15. Use a clamp to remove the tubes. Put the tubes in the kit insert until the tubes are cool.



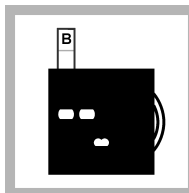
16. Fill the two tubes to the 10-mL mark with the prepared ferric chloride reagent.



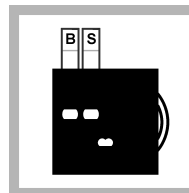
17. Put the stopper on the tubes. Invert to mix.



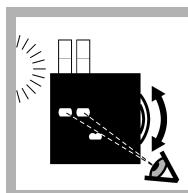
18. Wait 5 minutes.



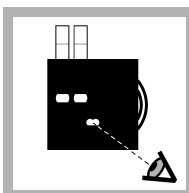
19. Put the blank tube into the left opening of the color comparator box.



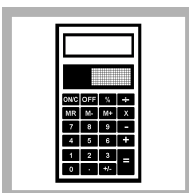
20. Put the sample tube into the color comparator box.



21. Hold the color comparator box in front of a light source. Turn the color disc to find the color match.



22. Read the value in the scale window.



23. Multiply the value by the dilution factor in Table 1 to get the result in mg/L.

Table 1 Sample dilution

Concentration estimate	Sample volume	Mixing cylinder	Dilution factor
1–14 mg/L	no dilution	—	1
5–70 mg/L	2 mL	10 mL	5
10–140 mg/L	1 mL	10 mL	10
50–700 mg/L	2 mL	100 mL	50
200–2800 mg/L	0.5 mL	100 mL	200

