

visicolor[®] Powder Pillows

Total Chlorine

DPD-Reagent for the photometric determination of total chlorine or ozone in drinking water, swimming pools and water reservoirs

Measuring range:

0.03–6.00 mg/L Cl₂ [method 7211]

0.03–4.00 mg/L O₃ [method 7212]

Method:

Photometric determination of total chlorine or ozone. At a pH value of 6.2 to 6.5 in a phosphate buffered system, free chlorine reacts with *N,N*-diethyl-1,4-phenylene diamine (DPD) and forms a red-violet dye. In the presence of iodide ions, the content of total chlorine or ozone can be determined. In order to obtain accurate results the sample must be analyzed immediately after collection and cannot be preserved for later analysis. Bubbles in the sample cell can cause higher results and must be avoided. This may require an additional gentle shaking.

Hazard warning:

Information regarding safety can be found on the box' label and in the safety data sheet. You can download the SDS from www.mn-net.com/SDS.

Procedure:

Requisite accessories: 2 test tubes 16 mm OD (REF 91680) or 2 test tubes 24 mm OD (REF 936101)

A . Rinse test tube several times with sample (*pH value of sample must be between pH 4 and 8*)

Blank (optional):

B . Fill one test tube with **5 mL*** of sample

C . Clean test tube

D . Place test tube in photometer as blank value and adjust for zero

Sample:

E . Fill another test tube with **5 mL*** of sample

F . Add content of **1 Powder Pillow total Chlorine**

G. Close test tube and shake well

H . Clean test tube

I . Wait for **2 min**

J . Measure

*Alternative procedure: Use 10 mL of sample.

Measurement:

See manual for all MACHEREY-NAGEL photometers.

After use, rinse out test tubes thoroughly and seal them.

Suitable for the analysis of sea water.

Interferences:

The temperature of the water sample should be between 10 °C and 50 °C.

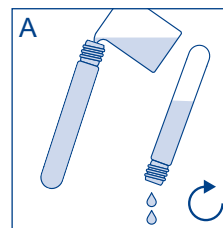
Br₂ and I₂ interfere at all levels.

Manganese compounds in high oxidation states interfere at all levels.

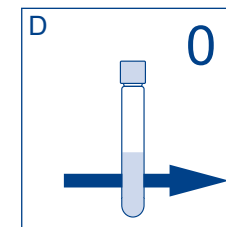
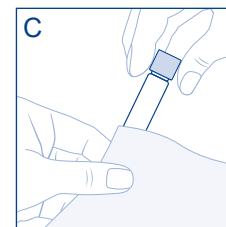
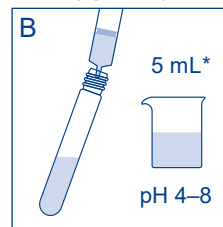
ClO₂ and other oxidizing agents interfere at all levels.

Disposal of samples:

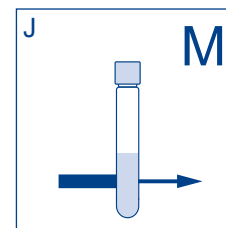
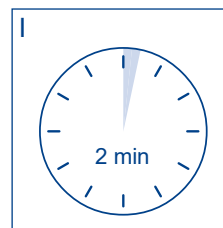
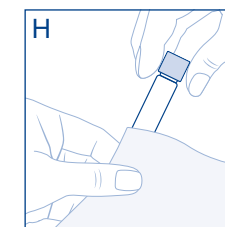
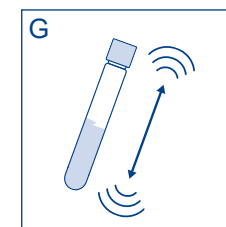
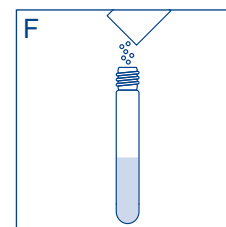
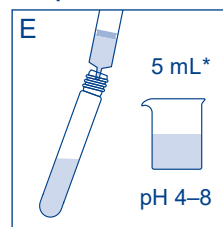
Information regarding disposal can be found in the safety data sheet. You can download the SDS from www.mn-net.com/SDS.



Blank (optional):



Sample:



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visicolor[®] Powder Pillows

Gesamt Chlor

Reagenziensatz zur photometrischen Bestimmung von **gesamtem Chlor oder Ozon**
Trinkwasser, Schwimmbadwasser und Wasserreservoirs

Messbereich:

0,03–6,00 mg/L Cl₂ [Methode 7211]

0,03–4,00 mg/L O₃ [Methode 7212]

Methode:

Photometrische Bestimmung von **gesamtem Chlor oder Ozon**. Freies Chlor reagiert bei einem pH-Wert von 6,2–6,5 in einem phosphatgepufferten System mit *N,N*-Diethyl-1,4-phenylendiamin (DPD) zu einem rotviolettten Farbstoff. In Gegenwart von Iodid-Ionen wird der **gesamt Chlor oder Ozon** Gehalt bestimmt. Um möglichst akkurate Werte zu erhalten muss die Probe direkt nach Entnahme analysiert werden. Eine Aufbewahrung der Probe für eine spätere Analyse ist nicht möglich. Luftblasen im Inneren der Küvette führen zu Überbefunden und müssen vermieden werden. Hierzu kann ein leichtes Schwenken der Küvette erforderlich sein.

Gefahrenhinweis:

Informationen zu Gefahren finden Sie auf dem Außenetikett und im Sicherheitsdatenblatt. Das Sicherheitsdatenblatt können Sie unter www.mn-net.com/SDS herunterladen.

Ausführung:

Benötigtes Zubehör: 2 Reaktionsküvetten 16 mm AD (REF 91680) oder 2 Reaktionsgläser 24 mm (REF 936101)

A . Reaktionsglas mehrmals mit der Wasserprobe spülen (*der pH-Wert der Probe muss zwischen pH 4 und 8 liegen*)

Null (optional):

B . Eine Rundküvette mit **5 mL*** Probe füllen

C. Rundküvette von Außen säubern

D. Rundküvette in das Photometer einsetzen und Null-Messung durchführen

Probe:

E . Eine weitere Rundküvette mit **5 mL*** Probe füllen

F . Den Inhalt **eines Powder Pillows gesamt Chlor** zugeben

G. Rundküvette verschließen und kräftig schütteln

H. Rundküvette von Außen säubern

I . Reaktionszeit **2 min** abwarten

J . Messen

* Alternative Durchführung: 10 mL Probe verwenden.

Messung:

Siehe Handbuch für MACHEREY-NAGEL Photometer.

Nach Gebrauch Rundküvette gründlich spülen und verschließen.

Diese Methode ist auch für die Analyse von Meerwasser geeignet.

Störungen:

Die Temperatur der Wasserprobe soll zwischen 10 und 50 °C liegen.

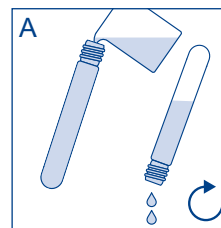
Br₂ und I₂ stören die Messung und führen zu Überbefunden.

Manganverbindungen in hohen Oxidationsstufen stören die Messung und führen zu Überbefunden.

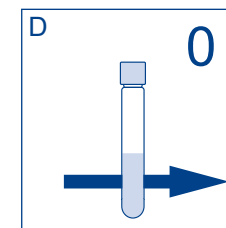
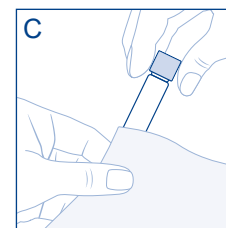
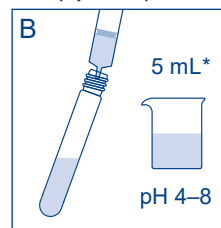
ClO₂ und andere Oxidationsmittel stören die Messung und führen zu Überbefunden.

Entsorgung:

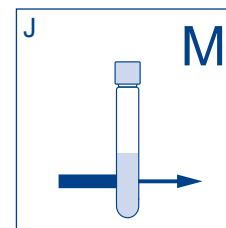
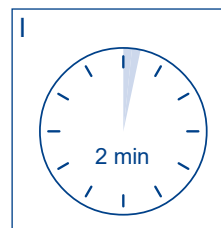
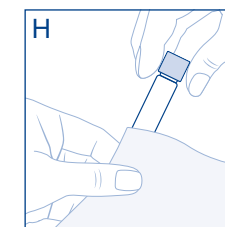
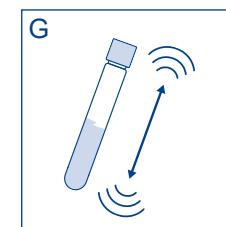
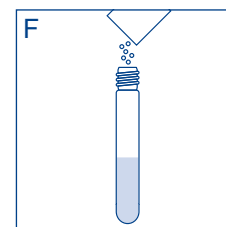
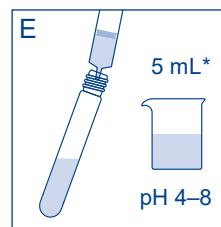
Informationen zur Entsorgung entnehmen Sie bitte dem Sicherheitsdatenblatt. Das Sicherheitsdatenblatt können Sie unter www.mn-net.com/SDS herunterladen.



Null (optional):



Probe:



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visicolor® Powder Pillows

Chlore total

Réactif DPD pour détermination photométrique du chlore total ou de l'ozone dans l'eau potable, l'eau des piscines et les réservoirs d'eau

Domaine de mesure :

0,03–6,00 mg/L Cl₂ [méthode 7211]

0,03–4,00 mg/L O₃ [méthode 7212]

Méthode :

Détermination photométrique du chlore total ou de l'ozone. Le chlore libre réagit à un pH de 6,2–6,5 dans un système tamponné au phosphate avec la *N,N*-diéthyl-1,4-phénylènediamine (DPD) pour former un colorant rouge-violet. En présence d'ions iodures, la teneur totale en chlore ou en ozone peut être déterminée. Afin d'obtenir des résultats les plus précis possibles, l'échantillon doit être analysé immédiatement après le prélèvement et ne peut pas être conservé pour une analyse ultérieure. Les bulles d'air dans l'échantillon sont susceptibles de donner des résultats élevés et doivent être évitées. Il convient alors de secouer légèrement la cuve ronde.

Indication de danger :

Vous trouverez des informations sur les risques sur l'étiquette de l'emballage et dans la fiche de données de sécurité. Vous trouverez la fiche de données de sécurité sur le site www.mn-net.com/SDS pour la télécharger.

Exécution :

Accessoires nécessaires : 2 cuves de réaction de 16 mm de diamètre extérieur (REF 96180) ou 2 cuves de réaction de 24 mm de diamètre extérieur (REF 936101)

A . Rincer plusieurs fois la cuve de réaction avec l'échantillon d'eau (*la valeur de pH de l'échantillon doit se situer entre pH 4 et 8*)

Blanc (en option) :

B . Remplir une cuve ronde avec un échantillon de **5 mL***

C . Nettoyer l'extérieur de la cuve ronde

D . Placer la cuve ronde dans le photomètre comme valeur à blanc et régler à zéro

Echantillon :

E . Remplir une autre cuve ronde avec un échantillon de **5 mL***

F . Ajouter le contenu d'un **Powder Pillow Chlore total**

G . Fermer la cuve ronde et secouer énergiquement

H . Nettoyer l'extérieur de la cuve ronde

I . Attendre **2 min**

J . Mesurer

* Procédure alternative : Utiliser 10 mL d'échantillon

Mesure :

Se reporter au manuel de tous les photomètres de MACHEREY-NAGEL.

Après utilisation, rincer avec précision les cuves rondes et les fermer.

Cette méthode est également appropriée pour analyser l'eau de mer.

Interférences :

La température de l'échantillon d'eau doit se situer entre 10 °C et 50 °C.

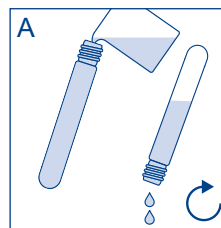
Br₂ et I₂ perturbent à tous les niveaux.

Le composé du manganèse à des états élevés d'oxydation perturbe à tous les niveaux.

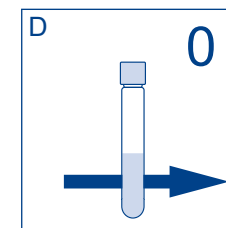
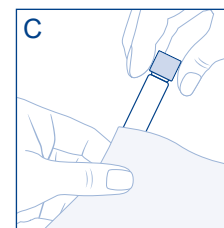
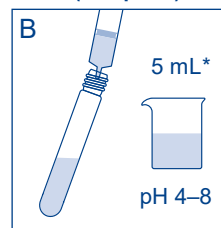
ClO₂ et les autres agents oxydants perturbent à tous les niveaux.

Élimination des échantillons :

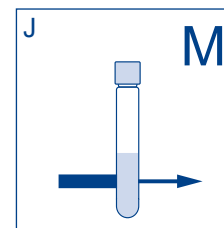
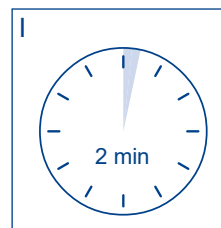
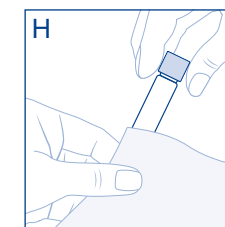
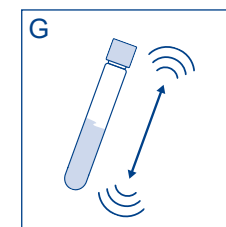
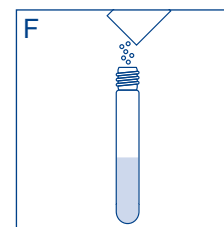
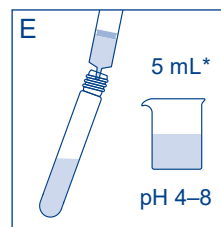
Vous trouverez des informations concernant l'élimination des produits dans la fiche de données de sécurité. Vous trouverez la fiche de données de sécurité sur le site www.mn-net.com/SDS pour la télécharger.



Blanc (en option) :



Echantillon :



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visicolor® Powder Pillows

Cloro total

Reactivo DPD para la determinación fotométrica de cloro total u ozono en agua potable, agua de piscinas y embalses

Rango de medida:

0,03–6,00 mg/L Cl₂ [método 7211]

0,03–4,00 mg/L O₃ [método 7212]

Método:

Determinación fotométrica del cloro total u ozono. El cloro libre reacciona a un valor de pH de 6,2–6,5 en un sistema tampón fosfato con la *N,N*-dietil-1,4-fenilendiamina (DPD) formando un colorante rojo-violeta. En presencia de iones de yoduro, puede determinarse el contenido de cloro total u ozono. Con el fin de obtener resultados precisos, la muestra debe analizarse inmediatamente tras su obtención y no puede guardarse para un posterior análisis. Las burbujas en la célula de muestreo pueden provocar resultados más elevados y deben evitarse. Esto podría requerir una cuidadosa agitación adicional.

Advertencia sobre peligro:

Encontrará la información sobre los riesgos en la etiqueta exterior y en la ficha de datos de seguridad. Puede descargar la ficha de datos de seguridad en www.mn-net.com/SDS.

Procedimiento:

Accesorios necesarios: 2 tubos de ensayo de 16 mm DE (REF 91680) o 2 tubos de ensayo de 24 mm DE (REF 936101)

A . Lave el tubo de ensayo de 16 mm DE varias veces con la muestra de agua (*el valor de pH de la muestra debe hallarse entre el pH 4 y 8*)

Blanco (opcional):

B . Llene un tubo de muestra con **5 mL*** de muestra

C.Limpie el tubo de muestra

D.Coloque el tubo de muestra en el fotómetro y mida el blanco

Muestra:

E . Llene otro tubo de muestra con **5 mL*** de muestra

F . Añada el contenido de **1 Powder Pillow Cloro total**

G.Cierre el tubo de muestra y agítelo enérgicamente

H.Limpie el tubo de muestra

I . Espere **2 min**

J . Realice la medición

* Procedimiento alternativo: use 10 mL de muestra.

Medición:

Consulte el manual de los fotómetros MACHEREY-NAGEL.

Tras el uso, aclare bien todos los tubos de muestra y ciérrelos.

Adecuado para el análisis de agua de mar.

Interferencias:

La temperatura de la muestra de agua debería hallarse entre 10 °C y 50 °C.

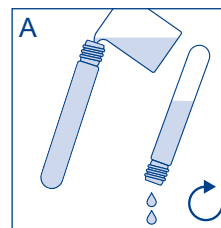
Br₂ y I₂ provocan interferencias en todos los niveles.

Los compuestos de manganeso en niveles de oxidación elevados provocan alteraciones en todos los niveles.

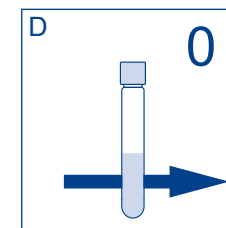
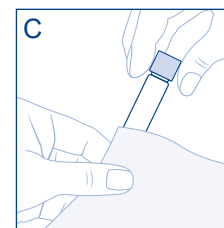
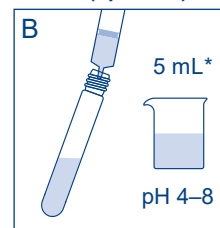
ClO₂ y otros agentes oxidantes provocan interferencias a todos los niveles.

Eliminación:

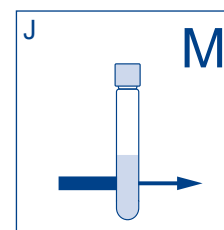
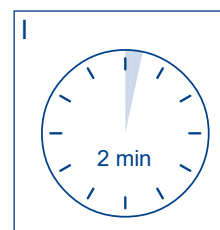
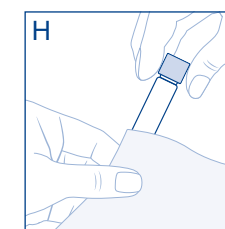
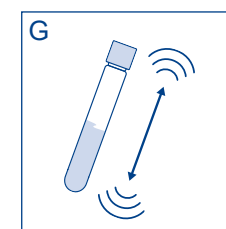
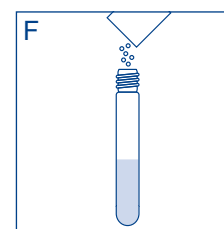
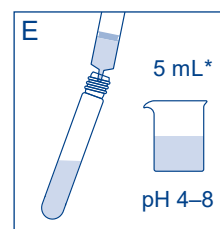
Consulte la información sobre la eliminación en la ficha de datos de seguridad. Puede descargar la ficha de datos de seguridad en www.mn-net.com/SDS.



Blanco (opcional):



Muestra:



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visicolor® Powder Pillows

Totaal Chloor

DPD reagens voor de fotometrische bepaling van totaal chloor en ozon in drinkwater, zwembadwater een waterreservoirs

Meetgebied:

0,03–6,00 mg/L Cl₂ [Methode 7211]

0,03–4,00 mg/L O₃ [Methode 7212]

Methode:

Fotometrische bepaling van totaal chloor en ozon. Bij een pH-waarde van 6,2 tot 6,5 in een fosfaat-gebufferde systeem reageert vrij chloor met *N,N*-diethyl-1,4-fenyleen diamine (DPD) voor het vormen van een roodviolet kleurstof. In aanwezigheid van jodide-ionen kan het gehalte aan totaal chloor of ozon worden bepaald. Om nauwkeurige resultaten te verkrijgen, moet het monster onmiddellijk na de monsterversameling worden gemeten en kan niet worden bewaard. Luchtbellen in de reageerbuis leiden tot hogere resultaten en moeten vermeden worden. Hiertoe kan een zachte schudden van de cuvette nodig zijn.

Voorzorgsmaatregelen:

Informatie over de gevaren vindt u op het verpakkingsetiket en het veiligheidsinformatieblad. U kunt het veiligheidsinformatieblad downloaden van www.mn-net.com/SDS.

Procedure:

Benodigde hulpmiddelen: 2 reageerbuizen 16 mm BD (REF 91680) of 2 reageerbuizen 24 mm BD (REF 936101)

A . Reageerbuis meerdere malen met het watermonster spoelen (de pH-waarde van het monster moet tussen pH 4 en 8 liggen)

Nul (optioneel):

B . Een reageerbuis met 5 mL* monsteroplossing vullen

C. Buitenkant van de reageerbuis schoonmaken

D. Reageerbuis in de fotometer plaatsen en nulmeting uitvoeren

Meting:

E . De tweede reageerbuis met 5 mL* monsteroplossing vullen

F . De inhoud van 1 Powder Pillows totaal Chloor toevoegen

G. Reageerbuis sluiten en krachtig schudden

H. Buitenkant van de reageerbuis schoonmaken

I . Reaktietijd van 2 min afwachten

J . Meten

* Alternatieve procedure: gebruik 10 mL monster.

Meting:

Zie handboek voor MACHEREY-NAGEL fotometer.

Na gebruik reageerbuis grondig spoelen en sluiten.

Deze methode is ook bruikbaar voor de analyse van zeewater.

Storingen:

De temperatuur van het monster moet tussen 10 en 50 °C liggen.

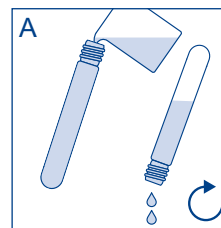
Br₂ en I₂ interfereren met de test en leiden tot hogere resultaten.

Mangaanverbindingen in hoge oxidatietoestanden interfereren met de test bij alle concentraties.

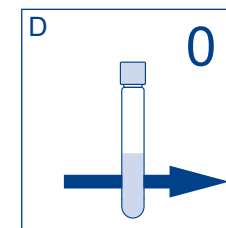
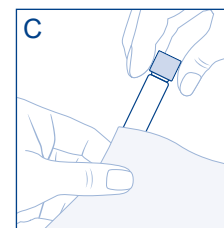
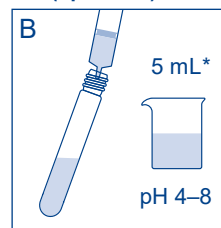
ClO₂ en andere oxiderende stoffen interfereren met de test bij alle concentraties.

Afvalverwerking:

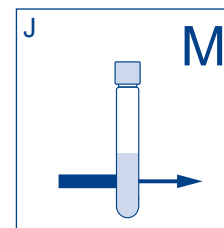
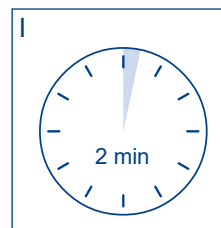
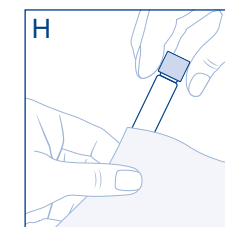
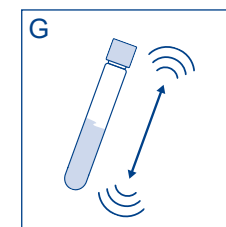
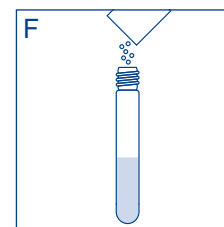
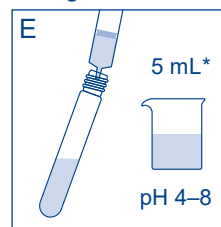
Raadpleeg het veiligheidsinformatieblad voor informatie over de afvoer. U kunt het veiligheidsinformatieblad downloaden van www.mn-net.com/SDS.



Nul (optioneel):



Meting:



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visocolor[®] Powder Pillows

Cloro totale

Reagente DPD utilizzato per la determinazione fotometrica del cloro totale o dell'ozono nelle acque potabili, nelle piscine e nei bacini idrici

Intervallo di valori:

0,03–6,00 mg/L Cl₂ [metodo 7211]

0,03–4,00 mg/L O₃ [metodo 7212]

Metodo:

Determinazione fotometrica del cloro totale o dell'ozono. In un sistema tamponato con fosfato, a un pH di 6,2–6,5 il cloro libero reagisce con la *N,N*-dietil-1,4-fenilendiammina (DPD) formando un colorante rosso viola. La presenza di ioni ioduro permette di determinare il contenuto totale di cloro o ozono. Per ottenere risultati accurati, il campione deve essere analizzato immediatamente dopo il suo prelievo e non è possibile conservarlo per un'analisi successiva. La presenza di bolle nella cella campione può portare a risultati più elevati e pertanto dovrebbe essere evitata. Quindi potrebbe essere necessaria un'ulteriore agitazione gentile del campione.

Avvisi di pericolo:

Per informazioni sui pericoli, leggere l'etichetta esterna e consultare la scheda di sicurezza. La scheda di sicurezza può essere scaricata dal sito www.mn-net.com/SDS.

Procedimento:

Materiali necessari: 2 cuvette di reazione da 16 mm DE (diametro esterno) (REF 91680) o 2 cuvette di reazione da 24 mm DE (diametro esterno) (REF 936101)

A . Risciacquare più volte la cuvetta di reazione con il campione di acqua (*il valore del pH del campione deve essere compreso tra 4 e 8*)

Bianco (opzionale):

B . Versare **5 mL*** di campione in una provetta

C. Pulire la provetta

D. Posizionare nel fotometro la provetta da considerare come valore bianco e impostare lo zero

Campione:

E . Versare **5 mL*** di campione in un'altra provetta

F . Aggiungere il contenuto di **1 Powder Pillow Cloro totale**

G. Chiudere la provetta e agitare vigorosamente

H. Pulire la provetta

I . Attendere **2 min**

J . Misurare

* Procedura alternativa: utilizzare 10 mL di campione.

Misura:

Fare riferimento al manuale relativo a tutti i fotometri MACHEREY-NAGEL.

Dopo l'utilizzo, risciacquare accuratamente e sigillare le provette.

Adatto all'analisi di acque marine.

Interferenze:

La temperatura del campione di acqua dovrebbe essere compresa tra i 10 °C e i 50 °C.

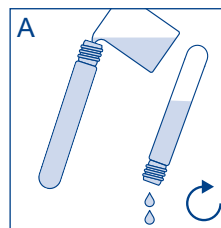
Br₂ e I₂ interferiscono a tutti i livelli.

I composti di manganese ad alto stato di ossidazione interferiscono a tutti i livelli.

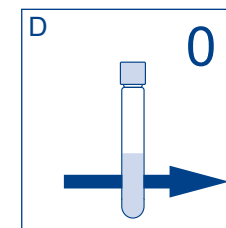
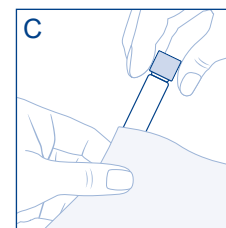
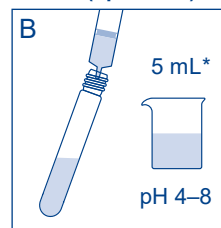
ClO₂ e altri agenti ossidanti interferiscono a tutti i livelli.

Smaltimento dei campioni:

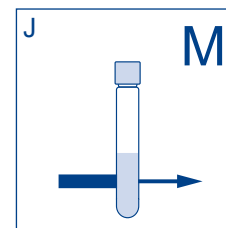
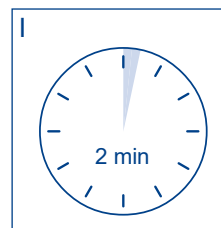
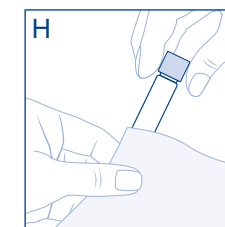
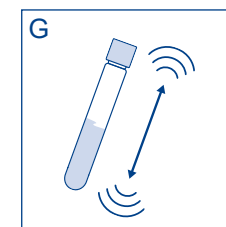
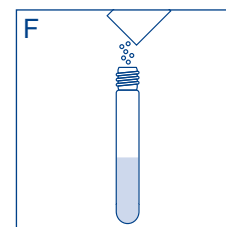
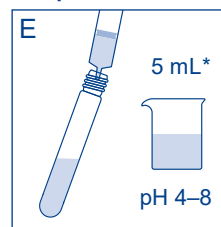
Per informazioni sullo smaltimento, consultare la scheda di sicurezza. La scheda di sicurezza può essere scaricata dal sito www.mn-net.com/SDS.



Bianco (opzionale):



Campione:



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visocolor[®] Powder Pillows

Cloro Total

Reagente DPD para determinação fotométrica de cloro total ou ozônio em água potável, piscinas e reservatórios

Faixa de medição:

0.03–6.00 mg/L Cl₂ [método 7211]

0.03–4.00 mg/L O₃ [método 7212]

Método:

Determinação fotométrica de cloro total ou ozônio. Com valor de pH entre 5 e 6 em sistema tamponado por fosfato, o cloro livre reage com N,N-dietil-1,4-fenileno diamina (DPD) para formar uma coloração vermelho-violeta. Na presença de íons iodeto, o teor de cloro total ou ozônio podem ser determinados. Para obter resultados exatos, a amostra deve ser analisada imediatamente após a coleta e não pode ser preservada para análise posterior. Bolhas de ar na amostra podem causar maior teor de cloro e devem ser evitadas. Isso pode exigir uma agitação suave adicional.

Alerta de perigo:

Informações relativas à segurança podem ser encontradas na embalagem e na FISPQ. Você pode baixar a FISPQ em www.mn-net.com/SDS.

Procedimento:

Accessórios necessários: 2 tubos 16 mm DE (REF 91680) ou 2 tubos 24 mm DE (REF 936101)

A . Enxágue o tubo várias vezes com a amostra (*pH da amostra deve estar entre 4 e 8*)

Branco (opcional):

B . Transfira para o tubo **5 mL*** de amostra

C. Limpar o tuboteste

D. Colocar o tubo teste no fotômetro, como valor em branco e ajuste para zero

Amostra:

E . Transfira para o tubo **5 mL*** de amostra

F . Adicionar o conteúdo de **1 Powder Pillow Cloro Total**

G. Fechar o tubo teste e agitar bem

H. Limpar o tuboteste

I . Esperar **2 min**

J . Medir

*Procedimento alternativo: Utilize 10 mL de amostra

Medição:

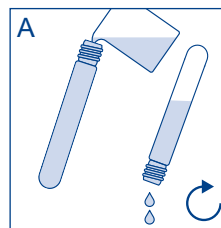
Consulte o manual para todos os fotômetros MACHEREY-NAGEL. Após o uso, enxágue completamente os tubos de ensaio e feche-os. Adequado para a análise da água do mar.

Interferências:

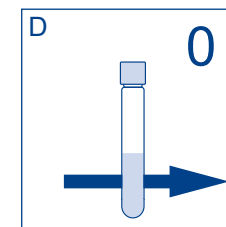
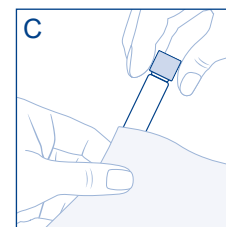
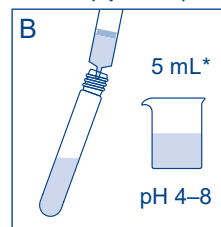
A temperatura da amostra de água deve estar entre 10 °C e 50 °C. Br₂ and I₂ interferem em todos os níveis. Os compostos de manganês em estados de alta oxidação interferem em todos os níveis. ClO₂ e outros agentes oxidantes interferem em todos os níveis.

Descarte de amostras:

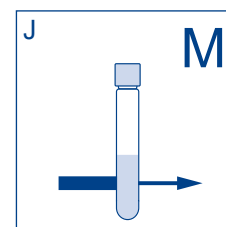
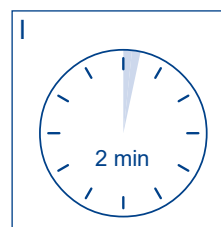
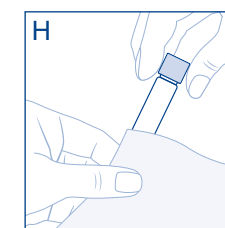
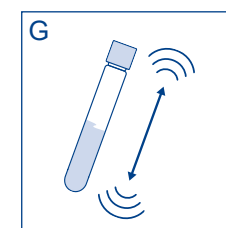
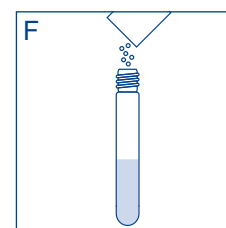
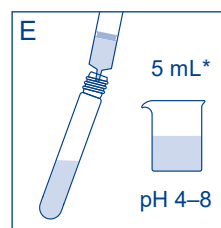
Informações sobre o descarte podem ser encontradas na FISPQ. Você pode baixar a FISPQ em www.mn-net.com/SDS.



Branco (opcional)::



Amostra:



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