

Congo Red Solution

Learn how to make Congo red solution and find out its pH range.

Materials

Distilled Water (item #858621)
Congo Red Dye (item #855348)
Ethyl Alcohol, 95% (item #861282)
Stir Bar
Amber Bottle
Magnetic Stir Plate (item #701023)
Erlenmeyer Flask, 500-mL (item #731030)
Label

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Item Numbers
855363, 855358, 855360, 855365

Procedure

1. Mix 0.5 g of Congo red dye with 90 mL of distilled water.
2. Add 10 mL of 95% ethyl alcohol (ethanol) and mix thoroughly.

Notes

- If desired, the proportions of water and ethanol can be altered slightly. Congo red is more soluble in organic solvents.

Label Information

Congo Red, 0.5% Aqueous

Date Prepared: _____
Initials of Preparer: _____
Health Risk: 2
Flammability: 1
Reactivity: 0

Applications

Congo red can be used as an indicator, turning from blue at pH 3.0 to orange-red at pH 5.0. Congo red is also used to stain microscopic preparates, especially as a cytoplasm and erythrocyte stain.

Reference

Brandwein, P. F., and E. Morholt. 1986. *A sourcebook for the biological sciences*, 3rd ed. Orlando, FL: Harcourt Brace Jovanovich, 1986, p. 158.

Steensma, D. P. 2001. Congo red: Out of Africa? *Archives of Pathology and Laboratory Medicine* 125 (2):250–2.