



MapleSolutions

3019 Lake Road, Dollard Des Ormeaux, QC, H9B 2R3 Canada - Tel : 1 (514) 472 0094 www.maplechemicals.com

TECHNICAL BULLETIN

STATEMENT OF USE

MA-FIX 3X is a cationic, polymeric fixative that has been designed to improve the washfastness of dyed cellulosic fabrics. **MA-FIX 3X** is particularly useful on fabrics that have been dyed with direct, reactive, sulfur, or azo dyes. An after treatment of **MA-FIX 3X** will control the tendency of direct and reactive dyes to bleed. **MA-FIX 3X** does not affect lightfastness. **MA-FIX 3X** is an excellent pre-treatment for exhaust pigment dyeing, too.

- * Free of Formaldehyde
- * Improves washfastness of dyed cellulose
- * Compatible with direct, reactive, sulfur, and azo dyes
- * Controls tendency of dyestuffs to bleed
- * No effect on lightfastness

TYPICAL PROPERTIES

Appearance	Amber liquid
Solids	20%
pH	4 - 7
Solubility	Readily soluble
Density	8.8 lbs./ gallon
Ionic Nature	Cationic

RECOMMENDATION FOR USAGE

Reactive and Direct Dye Fixative:

Exhaust Dyeing: **MA-FIX 3X** is added in 3 or 4 increments to the last rinse in exhaust processes. The recommended concentration range is 1% - 4% on the weight of the goods. After the addition of **MA-FIX 3X**, the bath pH is adjusted to 5.0 - 5.5 with acetic acid and the bath is circulated through the goods for about 15-20 minutes at 90°- 110°F.

Continuous Dyeing: **MA-FIX 3X** is recommended at 1% - 4% on the weight of the goods along with 20 - 40 g/L of salt. The fixative bath pH is maintained at 5.0 - 5.5 with acetic acid. No after rinse is needed in continuous dyeing.

Pigment dye Fixative

1. Fill vessel with water (80°F).
2. Add 2% (owf) Hipochem CEL.
3. Check pH (Adjust, if necessary, 5.0 - 5.5).
4. Weigh 6% **MA-FIX 3X** and dilute 1 part 3X to 15 parts water.
5. Add to vessel over 10 minutes.
6. Circulate 10 minutes at 80°F.
7. Heat to 160°F. at 4°F./minute.
8. Hold at 160°F. for 20 minutes.
9. Overflow rinse to 80°F.
10. Drop and refill to 80°F., Circulate for 5 minutes.
11. Drop and refill to 80°F., Circulate for 5 minutes.
12. Drop and refill to 80°F., check pH and adjust, if necessary to 5.0 -5.5.
13. Add Hipochem CEL and circulate 5 minutes.
14. Weight pigment dye in premix with water
15. Add Hipocryl ECCl to above pre-mix.
16. Mix for 15 minute to ensure uniformity of mixture
17. Add pre-mix slowly over 20 minutes.
18. Run at 80°F. for 15 minutes.
19. Heat to 120°F. at 2°F./minute.
20. Hold at 120°F. for 30 minutes.
21. Overflow rinse to 80°F.



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22. Drop and refill circulate for 5 minutes.
23. Drop and refill.
24. If water is clear and does not contain dye, heat to 110°F.
(If water contains pigment dyes, repeat step #23 until bath is free of dye.)
25. Add 0.5% Ma-Soft CAT.
26. Hold for 10 minutes at 110°F.
27. Drop bath, unload, and dry.

STORAGE AND HANDLING

Normal precautions taken with all chemical auxiliaries should be used. **DO NOT LET ME FREEZE!**

PACKAGING

Available in returnable drums.

PHYSIOLOGICAL DATA

For Industrial Use Only: The usual precautions in keeping chemicals from the eyes and skin and avoiding ingestion and prolonged inhalation of vapors should be observed.

While every care has been taken to ensure the accuracy of the information contained in this publication, no warranty or liability will be accepted as the conditions of usage are beyond our control. Product specifications can be provided upon request.

Our Technical Sales Department is available to assist customers in preparing formulae and procedures to suit their specific requirements. Production trials are recommended to determine effectiveness. Process information submitted by our customers will be treated in confidence.