



# MapleSolutions

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

## TECHNICAL BULLETIN

### STATEMENT OF USE

**Ma-Lube CO/PK** is a specially formulated paraffin wax lubricant for knitting and weaving yarn that is applied by the exhaust method in package equipment. **Ma-Lube CO/PK** is specifically designed to be readily dispersible in cold water and provide ease in handling. **Ma-Lube CO/PK** can also be used with anti-ozonates to provide additional ozone protection for heavy bleach finishes used in garment wet processing.

### TYPICAL PROPERTIES

|                      |   |
|----------------------|---|
| Chemical Composition | Concentrated paraffin wax emulsion  |
| Activity, %          | Approx. 40  |
| Ionic Nature         | Cationic  |
| Appearance           | Milky liquid  |
| Solubility           | Dispersible in cold water   |
| pH (Neat)            | 3.5 ± 1.0   |
| Compatibility        | Compatible with cationic and nonionic materials. It is not compatible with anionic products. Sensitive to alkaline pH and alkaline material (sodium hydroxide, sodium carbonate). |
| Density, lbs/gal.    | Approx. 8.0   |

### ADVANTAGES

- **Ma-Lube CO/PK** can be applied to cotton, polyester/cotton, polyester and PTT yarns, which are used for the production of knitted fabrics. The treated yarns show low frictional resistance on thread guides and deflecting devices on the processing machines. **Ma-Lube CO/PK** offers special advantages, both on yarns which are not rewound and on sensitive simple yarns where neps may be present or slipping may occur with solid paraffin treatment. **Ma-Lube CO/PK** lubricates the yarn to improve the release properties from the take-off package in backwinding operations. The optimum low friction and antistatic characteristics allow backwinding without damaging the yarn. The uniform tensions imparted to the yarns after this treatment permit backwinding at high speeds and the formation of soft cones that feed well from knitting and weaving machines.
- Does not contain alkylphenol ethoxylates.

### APPLICATION

#### **A. 100% Polyester Yarns (Textured, Filament)**

After the normal bleaching or dyeing cycle (including rinsing, soaping and washing), the following is recommended:

1. The yarn packages should be given a cold wash, followed by draining and refilling with cold water. The bath/yarn pH should be **neutral** at this point.
2. Levels of 1.0 – 3.0% o.w.g. (on-the-weight-of-the-goods) of the **Ma-Lube CO/PK** are then prediluted with cold water in the mixing tank.
3. Check the pH of the diluted **Ma-Lube CO/PK** and adjust to a pH of 6.0 – 6.5 using disodium phosphate.
4. The diluted **Ma-Lube CO/PK** is then added to the machine, half on the inside-out flow and half on the outside-in flow.
5. Run 2 to 4 cycles at 77° F (25° C) for 10 minutes.
6. Raise the temperature to 140° F (60° C) at 2° C/minute.
7. Run 4 to 6 cycles for 10 to 15 minutes at 140° F. The bath will change from a milky color to clear as the product exhausts onto the fiber.
8. Drain and unload the machine.



# MapleSolutions

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

## B. Cotton and Polyester/Cotton Yarns

After the normal bleaching or dyeing cycle (including rinsing, soaping and washing), the following is recommended:

1. The yarn packages should be given a cold wash, followed by draining and refilling with cold water. The bath/yarn pH should be neutral at this point.
2. Levels of 1.00 - 3.00% o.w.g. of the **Ma-Lube CO/PK** are then prediluted with cold water in the mixing tank. Check the pH and adjust to 4.5 – 5.0; if necessary.
3. The diluted **Ma-Lube CO/PK** is then added to the machine; half on the inside-out flow and half on the outside-in flow. The bath temperature should be less than 100° F at the start of the cycle.
4. Raise the temperature to 120° F (49° C) and run 2 to 4 cycles (10 - 20 minutes). The bath will change from a milky color to clear as the product exhausts onto the fiber.
5. Drop bath and unload the machine.

### Garment Application

Apply **Ma-Lube CO/PK** in the final rinse at 120° F for five minutes. The pH is set at 4.5 for cellulosic-containing garments.

### 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.