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-LUBE® ELS is a unique, highly efficient finishing agent for the lubrication of sewing thread and embroidery thread by the exhaust method. The product produces an extremely effective heat shield on the yarn and exhibits superiority over other products and methods. **MA-LUBE® ELS** is suitable for all types of threads, including polyester, polyamide, rayon and cotton (whether core thread, blended or filament).

TYPICAL PROPERTIES

Chemical composition	Substantive emulsion of various silicones in combination with waxes, softeners and emulsifiers with anti-static properties.
Appearance	White, slightly viscous dispersion
Activity, %	Approx. 48
Ionic Nature	Cationic
pH (Neat)	4.0 ± 0.5
Density, lb/gal	Approx. 8.0
Compatibility	Compatible with nonionic and cationic products. Not compatible with anionic products.
Stability	Unaffected by hard water and organic acids
Solubility	Dispersible in cold water
Storage	Protect against frost. **MA-LUBE® ELS** must be stirred before being removed from the container.

- Effective heat shield, which prevents softening of polymeric synthetic thread with as little as 4% o.w.g. applied
- Excellent antistatic properties
- Does not effect colorfastness
- Does not migrate into the fiber, even after extended storage periods
- Excellent exhaustion properties
- Provides low friction characteristics
- Reduces trimer deposits on lower bobbin and yarn tensioning devices
- Eliminates the most difficult sewing problems with 8 - 10% o.w.g. (on-the-weight-of-the-goods) applied
- For embroidery threads, 3 - 5% o.w.g. (on-the-weight-of-the-goods) is recommended
- Facilitates the sliding properties of the thread in severely stressed locations; in addition, the frictional heat developed is conducted away from the needle. A level of 10 - 20% o.w.g. of **MA-LUBE® ELS** is required.

APPLICATION

- Set the pH of the finishing liquor between 6.5 - 7.0 with disodium phosphate (DSP). Increase temperature to 82° C (180° F). Nearly complete exhaustion is obtained at this temperature. [Often this result is achieved with a temperature as low as 65° C (150° F)]. The temperature should be reached by alternating liquor circulation within a 30-minute time period. Package extracting and drying should be performed always under the same conditions.
- The quantity to be applied depends on the desired coating and end use. The add-ons from inside to center to outside vary insignificantly. In use, the sewing thread behaves consistently from the start to the end of the package.
- Alternating pressure drying has proved to be particularly recommendable. **MA-LUBE® ELS** is not steam-volatile. During drying, the distribution of the finishing agent within the package is not changed.
- The packages may be dehydrated by normal spin-drying. Spinning speeds up to 1400 rpm and

spinning times between five and ten minutes are conventional.

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