








MaxxLube® HDPE-25 Oxidized High Density Polyethylene

MaxxLube HDPE-25 is a high-density oxidized polyethylene powder that provides sewing lubricity, tear-strength protection, abrasion resistance, and sanforizing lubricity to a variety of textile fabrics when used in emulsified form. It can be added to a number of coating formulations to improve abrasion, release, slip, and prevent adhesion. **MaxxLube HDPE-25** is an excellent polyethylene product suitable for use in textile, paper and a host of other coating applications.

TYPICAL PROPERTIES

Appearance	White to off-white powder
Acid Number (mg KOH/g)	24 – 26
Density @ 23 degrees C (g/cm ³)	>0.96
Emulsifiability	Good
Granulation	Pass 20 mesh
DSC Melt Peak (degrees C)	136-138

Performance Features:

-  **Excellent sewing and napping lubricant**
-  **Abrasion resistant lubricant**
-  **Compatible with many polymers**
-  **Retains hardness at higher temperatures**
-  **Provides surface lubricity, slip and release properties**

Markets:

-  **Textiles**
-  **Paper**
-  **Coatings**
-  **Adhesives**

Let MCTRON Technologies raise your expectations.

McTron Technologies, LLC Technical Support Team is available to provide assistance with the formulation of all our products to optimally suit your specific needs.

McTron Technologies LLC Guarantee





If any product is defective in workmanship or materials, McTron Technologies, LLC will replace the product, or refund the full purchase price. This warranty is in place of all other warrants, expressed or implied, and all implied warrants of a product for an intended use shall be solely up to the user. McTron Technologies, LLC assumes no liability for consequential damages. Its liability shall in no event exceed the purchase price of materials supplied by it.

Emulsification Procedures

Pressure Dilution – Non-ionic

Ingredient	Parts by Weight
MaxxLube HDPE-25	40
Surfonic N-100	10
Potassium Hydroxide	0.75
Sodium Meta-bisulfite	0.4
Water (for solids %)	50%
Water Dilution (for solids %)	35%
Potassium Hydroxide	0.6

Procedure




-  Load and agitate the first five ingredients and heat to 160-165°C
-  Hold temperature 30-40 minutes
-  Charge the dilution water to a second vessel and heat to 95°C. Inject into the vessel at the temperature of the initial blend.
-  Cool as quickly as possible.

Non-ionic Pressure Emulsion (single step reaction)

Ingredient

MaxxLube HDPE-25	25.5%
Tomadol 25-12 (12 EO surfactant)	4.0%
DA-6 (isodecyl, 6 EO surfactant)	4.0%
KOH (45%)	1.8%
Sodium Meta-bisulfite	0.15%
Water	balance

Notes

-  Any number of Ethoxylated surfactants can be used. An HLB of 13.0 to 14.0 is ideal for **MaxxLube HDPE-25**. Suggested surfactants are, but not limited to, Tomadol 25-9, Carbowet 109 or NP-10 (nonyl phenol with a cloud point of 60-66°C). Some of the best emulsions are achieved by blending systems as per the above.
-  An HDPE/surfactant ratio of 4:1 is a good starting point with a higher level of surfactant giving a more transparent emulsion and a lower ratio resulting in less water sensitivity.
-  The ratio of HOH will vary according to the amount and type of surfactant used.