



# REHEIS CHEMICAL COMPANY

DIVISION OF ARMOUR PHARMACEUTICAL COMPANY

GREYHOUND TOWER, PHOENIX, ARIZ. 85077  
AREA CODE 602 • 248-2820

August 6, 1973

Mr. Robert P. Shong  
Glidden - Durkee Div.  
SCM Corp.  
P. O. Box 8827  
Strongsville, Ohio 44136

Dear Mr. Shong:

Enclosed are new exterior latex primer formulations based on

TANBLOK<sup>TM</sup> TP-4

stain blocking agent, which you have recently requested. After six months, our subtropical weathering tests show TANBLOK at the recommended level to be equal to basic lead silicate as a stain blocking agent. Yet, TANBLOK does the job for 12 to 15 cents per gallon, about half the cost of lead. Our price list is attached.

Free 1-pound samples of TANBLOK, as well as 1-quart samples of factory-made primer are available by mailing the enclosed postcard or by contacting:

Mr. Jack Lawrence  
Reheis Chemical Company  
235 Snyder Avenue  
Berkeley Heights, NJ 07922

If you have recently requested samples of TANBLOK and/or primer made with it, Mr. Lawrence will send these to you under separate cover.

If we can be of further service, please call Mr. Lawrence at (201)-464-1500, or call me collect at (602)-248-5326.

Sincerely yours,

*Peter D. Moskovits*

P. D. Moskovits, Manager  
Marketing Research & Development

PDM:st  
Encl.

R. P. S.  
AUG 10 1973

GLD005339

# PRICE LIST

REHEIS CHEMICAL COMPANY

DIVISION OF ARMOUR PHARMACEUTICAL COMPANY

## TANBLOK™ TP-4 polybasic aluminum derivative

A non-toxic anti-staining agent for  
exterior latex primers for soft woods

| <i>Stock No.</i> | <i>Product</i> | <i>Size</i> | <i>Price</i> |
|------------------|----------------|-------------|--------------|
| 5900-00          | TANBLOK™ TP-4  | 200 lbs     | \$1.22/lb    |
| 5910-00          | TANBLOK™ TP-4  | 50 lbs      | \$1.23/lb    |

F.O.B. Berkeley Heights, N.J. Net 30 days  
Add 2c/lb. F.O.B. Bradley and Houston  
Add 3c/lb. F.O.B. Los Angeles

50 lb. drum is 11½ inch by 17¼ inch  
7 gallons, tare weight 4 lbs.  
200 lb. drum is 17 inch by 28½ inch  
26 gallons, tare weight 10 lbs.  
both non-returnable Leverpak fiber drums  
with polyethylene laminated linings.

### ORDERING INFORMATION

NEW JERSEY Plant  
& Sales Office  
235 Snyder Avenue  
Berkeley Heights, NJ 07922  
Phone: (201)-464-1500

ILLINOIS Warehouse  
& Sales Office  
Route 50 North  
Bradley, IL 60915  
Phone: (815)-932-6771

CALIFORNIA Warehouse  
& Sales Office  
1536 North Knowles Avenue  
Los Angeles, CA 90063  
Phone: (213)-263-9359

TEXAS Warehouse  
Place orders with the  
New Jersey Sales Office  
119 McCall Street  
Houston, TX 77020



Light Metal Chemicals Sales Office  
235 Snyder Ave., Berkeley Heights, New Jersey 07922  
Phone: 201-464-1500

GLD005340

Main Office: 111 West Clarendon, Phoenix, Arizona 85077. Phone: 602-248-5320

# TECHNICAL DATA

REHEIS CHEMICAL COMPANY  
DIVISION OF ARMOUR PHARMACEUTICAL COMPANY

VINYL-ACRYLIC  
AND PVA  
FORMULATIONS

Use recommendations for

## TANBLOK™ TP-4

POLYBASIC ALUMINUM DERIVATIVE

A non-toxic anti-staining agent for  
exterior latex primers for soft woods

### DIRECTIONS

- (1) The formulations presented herein have been developed experimentally. The types and amounts of ingredients to be used, the addition sequence, and other instructions must be followed exactly to obtain a stable product having the properties listed below each formulation. NEVER add TANBLOK™ TP-4 either at the end of the dispersion, or at the end of the completed batch; such addition will cause immediate flocculation.
- (2) It is impossible for us to evaluate the many brands or similar products that conceivably might be substituted for those listed in these formulations. If problems arise from substitutions, please feel free to request technical service from us.
- (3) The level of TANBLOK TP-4 recommended in these formulations has been established experimentally; higher levels are NOT recommended as package stability and film formation may be impaired. Thus more TANBLOK may give less stain blocking. "A little TANBLOK goes a long way!"
- (4) Non-ionic surfactants are recommended (as shown) in the formulations since these give greater package stability, particularly at elevated temperatures.
- (5) For highly staining woods, two coats of primer are recommended.

### CAUTION

- (6) Six months of exposure testing in Florida show TANBLOK to be equal to basic lead silicate as a stain blocking agent in exterior latex primers. However, you should make and be guided by your own tests in determining the suitability of the products, formulations, and methods mentioned herein. This information is offered in good faith but without any warranty, express or implied.
- (7) The addition of TANBLOK TP-4 to emulsion paints will cause a slight lowering of the pH. To guard against corrosion, lined cans are recommended and Raybo 60 has been introduced into the formulations.



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GLD005341

# TECHNICAL DATA

REHEIS CHEMICAL COMPANY  
DIVISION OF ARMOUR PHARMACEUTICAL COMPANY

RECOMMENDED STARTING POINT FORMULATION FOR  
UNMODIFIED VINYL-ACRYLIC EXTERIOR PRIMER  
USING TANBLOK™ TP-4 ANTI-STAINING AGENT

| HIGH SPEED MILL DISPERSION                                                                | POUNDS | GALLONS |
|-------------------------------------------------------------------------------------------|--------|---------|
| Water                                                                                     | 212    | 25.50   |
| $\frac{1}{2}$ { Methocel 4000 CPS<br>(DCC Grade 95 HG)<br>$\frac{1}{2}$ { Ethylene Glycol | 4      | 0.33    |
|                                                                                           | 28     | 3.00    |
| Add premix to water. Mix 5-10 minutes to permit Methocel to dissolve.                     |        |         |
| Add TANBLOK™ TP-4 and mix slowly 1-2 minutes to dissolve the TANBLOK™ TP-4                | 11.5   | 0.92    |
| Tergitol NPX                                                                              | 3      | 0.30    |
| Lecithin WD                                                                               | 2      | 0.25    |
| Melasol TK-100 (Note A)                                                                   | 1      | 0.10    |
| Merbac 35 (Note B)                                                                        | 0.5    | 0.04    |
| Raybo 60                                                                                  | 3      | 0.33    |
| Dec-fo 97-2                                                                               | 2      | 0.30    |
| Increase to high speed and add:                                                           |        |         |
| Ti-Pure R-950                                                                             | 150    | 4.55    |
| Imsil A-10                                                                                | 125    | 5.50    |
| Kaopaque 30                                                                               | 50     | 2.31    |
| Disperse for 10 minutes. Reduce to slow speed and add:                                    |        |         |
| Water                                                                                     | 90     | 11.00   |
| Ucar 2345                                                                                 | 423    | 47.00   |
| Dec-fo 97-2                                                                               | 2      | 0.30    |
|                                                                                           | 1107.0 | 101.73  |

PVC = 34.25%  
Percent non-volatile = 52.6%  
Viscosity = 75 to 80 KU

Revised July 1, 1973

Note A: Alternate mildewstats may be used. Follow manufacturer's recommendations for dosage and mixing procedure. Typical alternates are, for example: Dowicil S-13, Amical 77, Nop-cocide N-96.

Note B: Alternate bacteriostats may be used. Follow manufacturer's recommendations for dosage and mixing procedure. Typical alternates are, for example: Dowicil 75, Troysan 142, Proxel CRL.



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# TECHNICAL DATA

REHEIS CHEMICAL COMPANY

DIVISION OF ARMOUR PHARMACEUTICAL COMPANY

RECOMMENDED STARTING POINT FORMULATION FOR  
ALKYD MODIFIED VINYL-ACRYLIC EXTERIOR PRIMER  
USING TANBLOK™ TP-4 ANTI-STAINING AGENT

| HIGH SPEED MILL DISPERSION                                                 | POUNDS  | GALLONS |
|----------------------------------------------------------------------------|---------|---------|
| Water                                                                      | 212     | 25.50   |
| X Methocel 4000 CPS                                                        | 4       | 0.33    |
| U (DGS Grade 75 PG)                                                        |         |         |
| U Ethylene Glycol                                                          | 28      | 3.00    |
| Add premix to water. Mix 5-10 minutes to permit Methocel to dissolve.      |         |         |
| Add TANBLOK™ TP-4 and mix slowly 1-2 minutes to dissolve the TANBLOK™ TP-4 | 11.25   | 0.90    |
| Tergitol NPX                                                               | 3       | 0.30    |
| Lecithin WD                                                                | 2       | 0.25    |
| Metasol TY-100 (Note A)                                                    | 1       | 0.10    |
| Merbac 35 (Note B)                                                         | 0.5     | 0.04    |
| Raybo 60                                                                   | 3       | 0.33    |
| Dec-Fo 97-2                                                                | 2       | 0.30    |
| Increase to high speed and add:                                            |         |         |
| Ti-Pure R-960                                                              | 150     | 4.55    |
| Imsil A-10                                                                 | 125     | 5.50    |
| Kaopaque 30                                                                | 50      | 2.31    |
| Disperse for 10 minutes. Reduce to slow speed and add:                     |         |         |
| Water                                                                      | 137     | 16.50   |
| Ucar 2345                                                                  | 273     | 30.00   |
| X Igepal CTA-639                                                           | 4       | 0.46    |
| U Alkyd Resin (100% Solid                                                  | 75      | 9.04    |
| U 52 R 13 Type II)                                                         |         |         |
| U Aquacat                                                                  | 2       | 0.25    |
| Dec-Fo 97-2                                                                | 2       | 0.33    |
|                                                                            | 1084.75 | 99.99   |
| Percent Non-Volatile = 52.4%                                               |         |         |
| PVC = 34.3%                                                                |         |         |
| PH = 4.8-5.0                                                               |         |         |
| Viscosity = 85-90 KU                                                       |         |         |
| Percent modifier on binder solids = 33.3%                                  |         |         |

Revised July 1, 1973

Note A: Alternate mildewstats may be used. Follow manufacturer's recommendations for dosage and mixing procedure. Typical alternates are, for example: Dovicil S-13, Amical 77, Nopocide N-96.

Note B: Alternate bacteriostats may be used. Follow manufacturer's recommendations for dosage and mixing procedure. Typical alternates are, for example: Dovicil 75, Troysan 142, Proxel CRL.



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73-100

# TECHNICAL DATA

REHLIS CHEMICAL COMPANY

DIVISION OF ARMOUR FINE CHEMICAL COMPANY

RECOMMENDED STARTING POINT FORMULATION FOR  
UNMODIFIED POLYVINYL ACETATE EXTERIOR PRIMER  
USING TANBLOK™ TP-4 ANTI-STAINING AGENT

| HIGH SPEED MILL DISPERSION                                                       | POUNDS  | GALLONS |
|----------------------------------------------------------------------------------|---------|---------|
| Water                                                                            | 208     | 25.00   |
| Methocel 4000 CPS<br>(DGS Grade 95 HG)                                           | 4       | 0.33    |
| Ethylene Glycol                                                                  | 28      | 3.00    |
| Add premix to water. Mix 5-10 minutes<br>to permit Methocel to dissolve.         |         |         |
| Add TANBLOK™ TP-4<br>and mix slowly 1-2 minutes to dissolve<br>the TANBLOK™ TP-4 | 11.25   | 0.90    |
| Tergitol NPX                                                                     | 3       | 0.30    |
| Lecithin WJ                                                                      | 2       | 0.25    |
| Metasol TK-100 (Note A)                                                          | 1       | 0.10    |
| Merbac 35 (Note B)                                                               | 0.5     | 0.04    |
| Raybo 60                                                                         | 3       | 0.33    |
| Dec-Fo 97-2                                                                      | 2       | 0.30    |
| Increase to high speed and add:                                                  |         |         |
| Ti-Pure R-960                                                                    | 150     | 4.55    |
| Imasil A-10                                                                      | 125     | 5.50    |
| Kaopaque 30                                                                      | 50      | 2.31    |
| Disperse for 10 minutes.<br>Reduce to slow speed and add:                        |         |         |
| Water                                                                            | 112     | 13.50   |
| Ucar 1251                                                                        | 409     | 45.00   |
| Dec-Fo 97-2                                                                      | 2       | 0.30    |
|                                                                                  | 1110.75 | 101.71  |

PVC = 34%  
Percent non-volatile = 51.9%  
Viscosity = 85 to 90 KU

Revised July 1, 1973

Note A: Alternate mildewstats may be used. Follow manufacturer's recommendations for dosage and mixing procedure. Typical alternates are, for example: Dowicil S-13, Amical 77, Noprocide N-96.

Note B: Alternate bacteriostats may be used. Follow manufacturer's recommendations for dosage and mixing procedure. Typical alternates are, for example: Dowicil 75, Troysan 142, Proxel CRL.



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# TECHNICAL DATA

REHEIS CHEMICAL COMPANY

DIVISION OF ARMOUR PHARMACEUTICAL COMPANY

RECOMMENDED STARTING POINT FORMULATION FOR  
ALKYD MODIFIED POLYVINYL ACETATE EXTERIOR PRIMER  
USING TANBLOK™ TP-4 ANTI-STAINING AGENT

| <u>HIGH SPEED MILL DISPERSION</u>                                                | <u>POUNDS</u> | <u>GALLONS</u> |
|----------------------------------------------------------------------------------|---------------|----------------|
| Water                                                                            | 200           | 25.00          |
| Methocel 4000 CPS<br>(DGS Grade 95 HG)                                           | 4             | 0.33           |
| Ethylene Glycol                                                                  | 28            | 3.00           |
| Add premix to water. Mix 5-10 minutes<br>to permit Methocel to dissolve.         |               |                |
| Add TANBLOK™ TP-4<br>and mix slowly 1-2 minutes to dissolve<br>the TANBLOK™ TP-4 | 11            | 0.89           |
| Tergitol NFX                                                                     | 3             | 0.30           |
| Lecithin WD                                                                      | 2             | 0.25           |
| Metasol TK-100 (Note A)                                                          | 1             | 0.10           |
| Merbac 35 (Note B)                                                               | 0.5           | 0.04           |
| Raybo 60                                                                         | 3             | 0.33           |
| Dec-Fo 97-2                                                                      | 2             | 0.30           |
| Increase to high speed and add:                                                  |               |                |
| Ti-Pure 960                                                                      | 150           | 4.55           |
| Jmsil A-10                                                                       | 125           | 5.50           |
| Kaopaque 30                                                                      | 50            | 2.31           |
| Disperse for 10 minutes.<br>Reduce to slow speed and add:                        |               |                |
| Water                                                                            | 125           | 15.00          |
| Ucar 1251                                                                        | 332           | 36.50          |
| Igepal CTA-639                                                                   | 3             | 0.34           |
| Alkyd Resin (100% Solid)                                                         | 37            | 4.50           |
| 52 R 13 Type II                                                                  |               |                |
| Aquacat                                                                          | 1.5           | 0.20           |
| Dec-Fo 97-2                                                                      | 2             | 0.30           |
|                                                                                  | 1088.0        | 99.74          |
| Percent Non-Volatile = 51.8%                                                     |               |                |
| PVC = 34.0%                                                                      |               |                |
| PH = 4.9-5.1                                                                     |               |                |
| Viscosity = 90-95 KU                                                             |               |                |
| Percent modifier on hinder solids = 16.0%                                        |               |                |

Revised July 1, 1973

Note A: Alternate mildewstats may be used. Follow manufacturer's  
recommendations for dosage and mixing procedure. Typical  
alternates are, for example: Dowicil S-13, Amical 77, Noprocide  
N-96.

Note B: Alternate bacteriostats may be used. Follow manufacturer's  
recommendations for dosage and mixing procedure. Typical alter-  
nates are, for example: Dowicil 75, Troysen 142, Proxel CRH.



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# TECHNICAL DATA

REHEIS CHEMICAL COMPANY  
DIVISION OF ARMOUR PHARMACEUTICAL COMPANY

## TANBLOK™ TP-4 POLYBASIC ALUMINUM DERIVATIVE

### TYPICAL PROPERTIES

|                                                  |                                                        |
|--------------------------------------------------|--------------------------------------------------------|
| Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> ) | 47.0 ± 1.0%                                            |
| Iron (Fe)                                        | Not more than 100 ppm                                  |
| Lead (Pb)                                        | Not more than 20 ppm                                   |
| Arsenic (as As <sub>2</sub> O <sub>3</sub> )     | Not more than 7 ppm                                    |
| Appearance                                       | White powder                                           |
| Bulking Value-Dry                                | 0.080 gal/lb.                                          |
| Weight per gallon-Dry                            | 12.52 lbs/gal                                          |
| pH of 5% w/w water solution                      | 4.4                                                    |
| Particle Size through 100 mesh                   | Not less than 95%                                      |
| Appearance of Water Solution                     | Colorless, clear, clean                                |
| Solubility                                       | Soluble in water to approximately 55 percent by weight |

### TRADEMARKS

TANBLOK is a trademark of Armour Pharmaceutical Company.  
Other trademarks in the formulations (and their owners) include:

NEUTROCEL and DURECEL (Dow Chemical Co.)  
TENSITOL and Ucar (Union Carbide Corp.)  
MYTASOL and PLURVIC-35 (Monsanto Co.)  
RAYBO (Payco Chemical Co.)  
DEX-FO (Ultras Adhesives Co.)  
YI-TURK (E.I. du Pont de Nemours & Co.)  
SHILL (Illinois Minerals Co.)  
KAOHQUE (Georgia Kaolin Co.)  
AQUICAT (Molay Chem. Co.)  
AMICAL (Abbott Laboratories)  
MOTOCIDE (Mopco Div. of Diamond Shamrock)  
TRUSCAN (Troy Chemical Corp.)  
VIBREL (ICI America Inc.)  
IGCEL (ICI Corp.)



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