

INTER-OFFICE MEMO **TENNICO CHEMICALS, INC.**

TO	G. I. Rozand	AT	DATE	April 23, 1974
FROM	P. R. Scarito	AT	COPY TO	W. A. Britton J. F. Kilcullen A. C. Siegel <i>✓</i>
SUBJECT	<u>RAW MATERIAL LISTS--BURLINGTON SITE</u>			

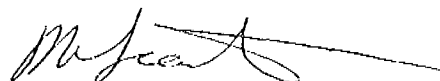
As per your request, attached are the raw material lists for the Burlington Operations.

The 1st list covers the raw materials used in the resin manufacturing operations. Each is listed by raw material code number and the chemical name where known for the raw material.

Additionally, list #2 includes those raw materials used in the utility operations for boiler treatment, effluent chemicals, and service water treatment.

List #3 covers those raw materials used in the compound operation including pigments used by the compound plant as well as a separate list of the solid materials and the liquids utilized in the various compounds. This particular list is prepared using code numbers and chemical names as requested; but in addition, since it was readily available, includes the supplier and the supplier's trade name since many of these products do have specific trade names rather than chemical names.

Please advise if you wish any further information on this matter.



P. R. Scarito

PRS:pj

Attchs.

4/18/74

T RESIN MANUFACTURING

RAW MATERIAL CODE NUMBER

RAW MATERIAL

95-000-01	Polyvinyl alcohol
95-001-01	Methylcellulose, 15 CPS MC
95-002-01	Methylcellulose, 50 CPS 65 Hg
95-004-04	Gelatin, Type 275A
90-012-05	Tributyl Phosphate
85-013-03	Lauroyl Peroxide
95-014-01	Sodium Bicarbonate
85-015-05	Butylated Hydroxytoluene
80-018-06	Aqueous Ammonia Hydroxide (28%)
80-021-06	40% DIW-80 (Ammonium Salt of Oleic Acid)
90-025-06	Sodium Lauryl Sulfate
80-029-05	Coconut Diethanolamide
90-030-05	* Colloids 581-B
90-031-05	* AF-60, Silicone Antifoam
90-033-01	Trisodium Phosphate
95-034-01	Sodium Carbonate (Soda Ash)
90-041-05	Polyoxyethylene (20) Sorbitan Monolaurate
90-042-06	Tridecanol
80-047-05	Methanol
80-050-06	Vinyl Chloride Monomer
80-051-06	Vinyl Acetate Monomer
80-052-06	Trichloroethylene
80-053-05	Styrene Monomer LM 130
80-056-05	Triallyl Isocyanurate (T.A.I.C.)
80-092-05	Phenol
90-100-05	Epoxidized Linseed Oil
90-101-05	* Organo-Silicone Fluid L-522

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I. RESIN MANUFACTURING (Continued)

<u>RAW MATERIAL CODE NUMBER</u>	<u>RAW MATERIAL</u>
95-107-04	Gelatin, Type 225B
95-111-02	Sodium Bisulfite
80-114-12	DI (2-ethylhexyl) Peroxydicarbonate in 40% solution in mineral oil
85-115-16	Ammonium Persulfate, Purified Crystals
80-120-07	Anhydrous Ammonia, Refrigeration Grade
90-123-05	Quarternary Ammonium Chloride
95-125-01	Methylcellulose 100 CPS 90 HG

* Proprietary information and manufacturer has refused to divulge chemical composition.

4/18/74

II. UTILITIES (Boiler Treatment, Effluent Chemical, and Service
Water Treatment)

<u>RAW MATERIAL CODE NUMBER</u>	<u>RAW MATERIAL</u>
80-006-05	75% Phosphoric Acid
90-007-06	* Betz 35 Organic Polyphosphate
90-026-05	* Degreaser 701 4N Emulsifier of Same Kind
85-032-04	76% Caustic Soda Flakes, Rayon Grade
80-045-06	No. 6 Fuel Oil 0.3% Sulfur Maximum
80-046-06	No. 4 Fuel Oil
80-059-13	Muriatic Acid (128 lbs./13 gals.)
80-061-06	Caustic Liquid
80-062-07	Liquid Chlorine
95-063-01	Ferric Sulfate
95-065-03	Calcium Hypochlorite, Granular (65-70% available chlorine)
95-066-06	Calcium Hydroxide, Special J Grade
85-066-01	Calcium Hydroxide, Low Magnesium
95-067-01	Sodium Chloride
95-068-01	* Sink Flocc AZ-6 (Clay)
80-071-13	Sulfuric Acid 66°
90-074-05	* Sny Solv Hydracarbon Blend
95-086-04	Anhydrous Sodium Sulfite
83-089-04	Octafilm Octyldecylamine
90-109-04	* Inhibitor 785P Organic Zinc-Polyphosphate
80-110-06	No. 2 Fuel Oil
95-113-01	* Polyfloc 1120 - Anionic HiMolecular Weight Organic Copolymer-Acrylamide
90-118-05	* Defoamer 300-66
90-127-06	* Betz 408 Phosphonate, Colloidal Surface Modifiers & Polymeric Absorbents
90-128-05	Liqui-Treat CL-1395 (EDTA) Ethylene Diamine Tetracetic Acid

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II. UTILITIES (Boiler Treatment, Effluent Chemical, and Service
Water Treatment) (Continued)

<u>RAW MATERIAL CODE NUMBER</u>	<u>RAW MATERIAL</u>
80-130-05	* Betz Slimicide C-30 Blend of Halogenated Organic Sulfur Biocide & Methylene Bisithiocyanate
90-131-05	* Betz Fuel-Solv FS-20 Dispersive Agent
80-133-14	Hydrogen Peroxide 35% H_2O_2
80-134-05	* DA 534 Fuel Treatment
85-135-06	Pulverized Quick Lime
	Sodium Hyrosulfite
	* Liqui Treat CL-2 (Chelant)
	Monuanmonium Phosphate
	* FS-81 Fuel Treatment

* Proprietary information and manufacturer has refused to divulge
chemical composition.

TENNICO CHEMICALS, INC.

ORGANICS & POLYMERS DIVISION

QUALITY CONTROL

BURLINGTON COMPOUND PLANT

PIGMENT LIST

April, 1974

<u>Code Number</u>	<u>Chemical Name</u>	<u>Supplier</u>	<u>Supplier's Tradename</u>
75-801-00	Titanium Dioxide	American Cyanamid	Unitane OR-450
75-802-00	Titanium Dioxide	Titanium Pigment	Titanox RANC (2061)
75-803-00	Titanium Dioxide	DuPont Pigments	TiPure R-902
75-804-00	Titanium Dioxide	Titanium Pigment	Titanox RA-41 (2071)
75-810-00	Lead Chromate	American Cyanamid	Primrose Yellow 40-1450
75-811-00	Synthetic Yellow Iron Oxide	Cities Service	Mapico Yellow 1100 (Lemon Yellow)
75-813-00	Lead Chromate	American Cyanamid	Medium Chrome Yellow (40-4500)
75-814-00	Benzidine-Anisidide	Sandoz Pigment	Graphol Yellow 4335-0
75-817-00	Synthetic Yellow Iron Oxide	F. Davis Company	Yellow Iron Oxide 569
75-821-00	Precipitated AZO	DuPont Pigments	Watchung Red RT-428
75-822-00	Precipitated AZO	DuPont Pigments	Watchung Maroon RT-710
75-828-00	Synthetic Red Iron Oxide	F. Davis Company	Davis Red Oxide 1115
75-832-00	Precipitated AZO Dispersion	Inmont Industries	RBH Red F225 E-83
75-841-00	Channel Carbon Black	Cities Service	999 Black
75-841-03	Furnace Carbon Black	Cabot Corporation	Monarch 700
75-844-00	Furnace Carbon Black	Cabot Corporation	Sterling 10 R
75-844-02	Furnace Carbon Black	Cabot Corporation	Regal 400 R
75-850-00	Molybdate Orange	American Cyanamid	Valencia Orange 40-8300
75-870-00	Chlorinated Copper Phthalocyanine	American Cyanamid	Cyanamid Green 15-3100
75-880-00	Phthalocyanine Organic Blue	DuPont Pigments	Monastral Blue B1-297D
75-881-00	Phthalocyanine Organic Blue	Hercules Powder	Imperial Blue X2137

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<u>Code Number</u>	<u>Chemical Name</u>	<u>Supplier</u>	<u>Supplier's Tradename</u>
75-881-01	Phthalocyanine Organic Blue	American Cyanamid	Cyanamid Blue 55-3290
75-882-00	Silicate Complex	United Ultramarine Chemicals	Ultramarine Blue 59-5374
75-884-00	Inorganic Vat Dye	General Aniline	Sudan Irisol
75-890-00	Aluminum Powder	Silberline Mfg. Co.	Silvex 1110
75-900-00	Inorganic Vat Dye Dispersed in PVC Resin	Flemington Product Development	10% Solid Masterbatch Sudan Irisol

SOLIDS

<u>Code Number</u>	<u>Chemical Name</u>	<u>Approved Supplier</u>	<u>Supplier's Trade Name</u>
75-731-09	Barium Cadmium Complex	Tenneco Org. & Poly. Div.	Nuostabe V-123
75-731-10	Barium Cadmium Complex	Argus Chemicals Tenneco Org. & Poly. Div.	Mark Ws Nuostabe V-1917 (R-245)
75-731-16	Barium Cadmium Complex	Tenneco Org. & Poly. Div.	Nuostabe V-1237
75-732-01	Basic Lead Silicate Sulfate Organic Complex	NL Industries	Tribase EXL
75-732-02	Dibasic Lead Phthalate	Witco Chemical NL Industries	Stayrite 8510 Dythal
75-732-03	Dibasic Lead Phthalate Organic Complex	NL Industries Witco Chemical	Dythal XL Stayrite 8515
75-732-04	Dibasic Lead Phosphate	NL Industries	Dyphos
75-732-05	Basic Lead Chloro-Silicate Organic Complex (oiled)	NL Industries	Lectro 60 XL
75-732-06	Basic Lead Carbonate	American Cyanamid (MacGregor Lead)	Scotch Laddie #15
75-732-07	Tribasic Lead Sulfate	NL Industries Eagle Picher	Tribase Epistat 100
75-732-12	Basic Lead Silicate Sulfate Complex	NL Industries Eagle Picher	Tribase E Epistat 110
75-732-13	Tribase Lead Sulfate Organic Complex	NL Industries	Tribase XL

Code Number	Chemical Name	Approved Supplier	Supplier's Trademark
75-732-14	Modified Tribasic Lead Sulfate	NL Industries	Tribasic AG
75-734-00	Micronized Calcium Stearate	Tenneco Org. & Poly. Div.	S-951
75-734-01	Polyethylene	Allies Chemical	AC-629A Polyethylene
75-734-02	Polyethylene	Allied Chemical	AC-6A Polyethylene
75-734-04	Dibasic Lead Stearate	NL Industries Tenneco Org. & Poly. Div. Witco Chemicals Ferro Chemicals	DS-207 Nuostabe V-1 Stayrite 15 Ferro 5801
75-734-07	Stearic Acid	Harchem Chemical McKesson Chemical	Double Pressed Stearic Acid Double Pressed Stearic Acid
75-734-10	Fused Lead Stearate	Tenneco Org. & Poly. Div. Witco Chemicals	V-2 Stayrite 30
75-734-14	Amide Wax	Glyco Chemicals	Aerawax C
75-734-15	Fully Refined Paraffin Wax	F.D. Ross Northern Chemical	Aristowax 165
75-734-18	Dibasic Lead Stearate	H&S Chemicals	Dibasic Lead Stearate
75-734-21	Fully Refined Paraffin Wax	Atlantic Richfield Sun Oil Company F.D. Ross Company	Aerowax 1420 Sunoco Wax 4412 Ross Flakes 145
75-734-27	Non-Metallic Wax-Like Derivative	Baker Castor Oil	Lubricin 25
75-734-28	Lead Calcium Soap	NL Industries	Plastiflow LPC
75-735-08	Antimony Oxide	Hooker Chemical M&T Chemicals NL Industries	Dechlorane A0 Thermoguard S or H Red Star

<u>Code Number</u>	<u>Chemical Name</u>	<u>Approved Supplier</u>	<u>Supplier's Trade Name</u>
75-735-03 (cont'd)	Antimony Oxide	NI Industries Harshaw Chemicals	Regular Grade Harshaw KR Grade
75-735-10	4,4'-isopropylidenediphenol	Dow Chemical McKesson Chemical	Bisphenol A Bisphenol A
75-735-17	Silica	Cabot Corporation	Cab-O-Sil M7
75-735-18	Acrylic Polymer	Rohm & Haas Tenneco Org. & Poly. Div.	Acryloid K-120 N Supercryl 100
75-735-20	Acrylic Polymer	Rohm & Haas	Acryloid K-175
75-735-23	Organic Microbicide	Tenneco Org. & Poly. Div.	Fungitrol 11
75-735-25	Acrylic Modifier	Mitsui & Company Rohm & Haas	Kurela BTA 111S Acryloid KM636
75-735-27	Acrylic Modifier	Rohm & Haas	Acryloid KM611
75-735-28	Chlorinated Polyethylene	Dow Chemical	CPE 3623
75-735-29	Styrene Type Polymer	AMOCO Chemical Company	Resin 18-210
75-736-01	Calcium Carbonate	H.T. Calcium Company R.E. Carroll Georgia Marble Company Vicron 2511	Camelwhite Atomite Gamaco Pfizer Chemical
75-736-02	Calcined Clay	Burgess Pigment	30P Clay
75-736-03	Calcined Clay	Freeport Kaolin	#33 Clay
75-736-04	Special Grade Calcium Carbonate	Pluess Stauffer	Onya BSH
75-736-05	Special Grade Calcium Carbonate	Pluess Stauffer	Onyalite 90T
75-737-01	Homopolymer Resin	Tenneco Org. & Poly. Div.	250-12 S

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RAW MATERIAL INDEX

PLASTICS

Code Number	Chemical Name	Approved Supplier	Supplier's Trademark
70-720-01	DOP (Di-(2-ethylhexyl) Phthalate	Union Carbide USS Chemicals Eastman (American Chem.) Tenneco Org. & Poly. Div. Hafco Chemicals EXXON Chemicals BASF	Flexol DOP PX 138 DOP DOP DOP DOP DOP
70-720-02	DIDP (Di iso decyl Phthalate)	Union Carbide USS Chemicals Chemical Solvents EXXON Chemicals Hafco Chemicals Tenneco Org. & Poly. Div.	Flexol 1010X PX 120 Flexol 1010X DIDP DIDP DIDP
70-720-03	610 Phthalate (610 Alcohol) (Mixed-m Alkyl Phthalate)	Hafco Chemicals USS Chemicals Tenneco Org. & Poly. Div. Union Carbide	610P PX 316 Nuoplaz 6210 Flexol NNDP
70-720-04	NODP (Synthetic Umbrex Alcohol) (n-Octyl, n-decyl Phthalate)	USS Chemicals Allied Chemicals Monsanto Chemicals Reichhold Chemicals Hafco Chemicals	PX 314 Elastex 82P DNODP Stayflex 500 NODP
70-720-06	DTDP (Di tri decyl Phthalate)	Monsanto Chemicals Union Carbide USS Chemicals Chemical Solvents American Chemicals EXXON Chemicals Hooker Chemicals Reichhold Chemicals Hafco Chemicals Tenneco Org. & Poly. Div.	DTDP 1313X PX 126 Distr. Flexol 1313X Distr. Enjay DTDP DTDP DTDP DTDP DTDP DTDP
70-721-01	DOA (Di-(2-ethylhexyl) Adipate	Hafco Chemicals American Chemicals Monsanto Chemicals Rohm & Haas Tenneco Org. & Poly. Div. Teknor Apex	DOA Distr. Eastman Chem. DOA DOA Nuoplaz 6815 DOA

<u>Code Number</u>	<u>Chemical Name</u>	<u>Approved Supplier</u>	<u>Supplier's Trademark</u>
70-721-02	NODA (n-Octyl, n-decyl Adipate)	Monsanto Chemicals USS Chemicals Tenneco Org. & Poly. Div. Allied Chemicals Hateco Chemicals Rohm & Haas	DNODA PX 212 Nuoplaz 6810 NODA NOEA Monoplex NODA
70-723-02	Epoxy Soybean Oil	Tenneco Org. & Poly. Div. Rohm & Haas Ashland Chemical Union Carbide	Nuoplaz 849 Paraplex G-62 Admex 710 EPO
70-723-08	Polyester Type	Rohm & Haas	Paraplex G-54
70-724-08	Triisooctyl Trimellitate	Tenneco Org. & Poly. Div. Reichhold Chemicals Hateco Chemicals Hooker Chemicals	TIOTM/TOTM Stayflex TIOTM TIOTM Ruco TM
70-724-09	Oxtyl Diphenyl Phosphate	Monsanto Chemicals	Santicizer 141
70-724-10	TCP (Tri cresyl Phosphate)	Stauffer Chemicals Union Carbide Baldwin Montrose FMC	179EG TCP Distr. W.R. Grief Kronitex AA
70-725-06	Glyceryl Triacetylricinoleate	Baker Castor Oil	Flexricin P-8
70-730-08	Monobutyltin Stabilizer	M&T Chemicals Tenneco Org. & Poly. Div.	T-66 Nuostabe V-1562
70-731-16	Barium Cadmium Zinc Complex	Tenneco Org. & Poly. Div.	Nuostabe V-1571
70-731-19	Barium Cadmium Zinc Complex	Tenneco Org. & Poly. Div.	Nuostabe V-1793
70-733-02	Zinc Phosphite	Tenneco Org. & Poly. Div.	Nuostabe V-152
70-733-03	Phosphite Inhibitor	Tenneco Org. & Poly. Div.	Nuostabe V-142

<u>Code Number</u>	<u>Chemical Name</u>	<u>Approved Supplier</u>	<u>Supplier's Trade Name</u>
70-734-01	Mineral Oil	EXXON Chemicals	Primal 205
70-734-13	Fatty Acid Ester	Glyco Chemical Company	Glycolube RP

E = supplement
B = binder base
W.T. = water treatment

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RAW MATERIAL NUMBER IDENTIFICATIONS

Circle
Number

Raw Material

95-000-01 ✓	Elvanol, 50-42 (Polic) <i>polymerization</i>
95-001-01 -	<i>methocel</i> Methocel, 15 cps 65 Hg MC
95-002-01	<i>methocel</i> Methocel, 50 cps 65 Hg
95-004-04 ✓	Gelatin, Type 275A (30210)
80-006-05	E 75% Phosphoric Acid
90-007-06	W.T. - Betz 35
95-008-01	Methocel, 35 cps 90 Hg
90-010-05	Di-Allyl Malate, (E.I.)
95-011-01	Clay Pl
⁹⁰ 80-012-05 <i>BA (v)</i>	Tributyl Phosphate
85-013-03 <i>BA (v)</i>	Lauroyl Peroxide
95-014-01 ✓	Sodium Bicarbonate
85-015-05 ✓	Ionol-Ep <i>Bathylol</i> <i>hydroxytoluene</i>
80-018-06 ✓	Aqueous Ammonia (28%) <i>ammonium salt of carbonic acid</i>
80-021-06 ✓	40% DHW-80 Emulsifier Solution
90-022-05 -	Defoamer DF-156 -
90-024-05	A-Gel-6 EZ <i>no longer used</i>
90-025-06 ✓	<i>Sodium Lauryl Sulfate</i> Avirol-POL-1-N, Ultra-Sulfate-1
90-026-05	B- Degreaser 701 <i>mount & back</i>
90-027-05 #	<i>methocel</i> Ethelene Glycol
80-029-05 ✓	Ninol-1281 <i>coconut methanol emulsion</i>
90-030-05 ✓	* Colloids 581-B
90-031-05 ✓	* AF-60, Silicone Antifoam
85-032-04	B- 76% Caustic Soda Flakes, Rayon Grade
90-033-01 ✓	Trisodium Phosphate
95-034-01 ✓	Sodium Carbonate (Soda Ash)
95-036-01	P5/65

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Number	Raw Material
95-037-01	P-100/70
95-038-01	P-100/70E
90-041-05	Tween 20 <i>100, 200, 400, 600 (2) 1000</i>
90-042-06	Tridecanol
90-043-05	F.O.T. Special
90-044-05	Fuel Solv No. 3 <i>in larger need</i>
80-045-06	B - No. 6 Fuel Oil 0.3% Sulfur Maximum
80-046-06	B - No. 4 Fuel Oil
80-047-05	Methanol
90-049-05	Heptane E5
80-050-06	Vinyl Chloride Monomer
80-051-06	Vinyl Acetate Monomer
80-052-06	Trichloroethylene
80-053-05	Styrene Monomer LM 130
80-056-05	Triallyl Isocyanurate (T.A.I.C.)
95-057-01	Poly-Eth No. 3
90-058-05	Sludge Solvent
80-059-05	Muriatic Acid
80-059-13	B - Muriatic Acid (128 lbs./13 gals.)
95-060-02	Aluminum Sulfate
80-061-06	B - Caustic Liquid
80-061-05	Caustic Liquid
80-062-07	E - Liquid Chlorine
95-063-01	E - Ferric Sulfate
90-064-05	<i>manure</i> Glycerine 95%
95-065-03	<i>water</i> Sodium Hypochlorite, Granular (65-70% available chlorine)
95-066-06	E - Hydrated Lime, Special J Grade

Number	Raw Material
85-066-01	E - Hydrated Lime, low Magnesium
95-067-01	B - Solar (Rock) Salt
95-068-01	E - Sink Flocc AZ-6
95-070-01	Sterline-Brine Crystals
80-071-13	B - Sulfuric Acid 66°
80-072-05	Sulfuric Acid 98%
90-073-05	7 - Volisolve
90-074-05	B - Syn Solv
95-075-05	7 - Magnatrol No. 2
95-076-04	7 - Magnox
95-077-04	7 - Magnafos A
95-079-04	B - Adjunct - no longer used
95-082-04	7 - Dianodic 144
95-083-04	7 - Dianodic 968
80-085-05	27 - Slimicide J-12 - no longer used
95-086-04	B - Rem-OX
95-087-04	7 - Dianodic 972A
83-089-04	B - Octafilm
95-090-01	7 - Orotol
83-091-06	Nitrogen
80-092-05	Phenol
90-094-05	Colloids No. 1
90-095-06	CO ₂
90-100-05	Epoxel 9-5 <i>Epoxel 9-5</i>
90-101-05	* Organo-Silicone Fluid L-522
90-102-05	foam-Froth 125B
80-105-05	Octadecene-1 (Alpha Olefin)

2/3/72

Number	Raw Material
90-106-05	2 - Liqui-Treat CL-329
95-107-04	Colatin, Type 225B <i>(10% sol)</i>
90-109-04	<i>U.T.</i> Inhibitor 785P
80-110-06	<i>U.S.</i> No. 2 Fuel Oil
95-111-02 ✓	Sodium Bisulfite
90-112-04	Nacconol-90F
95-113-01	<i>C</i> - Polyfloc 1120
80-114-12 ✓	<i>in (2-ethylhexyl) persulfonate in</i> Lupersol-223M (40% solution in mineral oil)
85-115-16 ✓	Ammonium Persulfate, Purified Crystals
80-116-05	Acetone-CP-Grade
80-117-05	Solvesso 100 (41-Sol-10)
90-118-05	<i>C</i> - Defoamer 300-66
80-119-05	Tetrahydrofuran, Industrial Grade
80-120-07 ✓	Anhydrous Ammonia, Refrigeration Grade
90-121-05	<i>B</i> - Betz 370 No longer used
90-122-06	<i>U.T.</i> Betz 412 No longer used
90-123-05 ✓	Emcol-CC-5 <i>Quaternary Ammonium Chloride</i>
80-124-05	<i>U.T.</i> Hercules AF501 No longer used <i>methylcellulose</i>
95-125-01 ✓	Methocel 100 cps 90 HG
95-126-05	Emcol-MSF
90-127-06	<i>U.T.</i> Betz 408
90-128-05	<i>B</i> - Liqui-Treat CL-1395 <i>[E.D.T.H.]</i>
90-129-05	<i>B</i> - Stop-Soot No longer used
80-130-05	<i>U.T.</i> Betz Slimicide C-30
90-131-05	<i>B</i> - Betz Fuel-Solv FS-20
95-132-17	Hornel-Gelatin Blend A Type 225
80-133-14	<i>C</i> - Hydrogen Peroxide 35%
80-134-05	<i>B</i> DA 534 Fuel Treatment
85-135-06	<i>C</i> - PULVERIZED QUICK LIME
	<i>B</i> LAKEMAN (SODIUM HYDROSULFITE)

COLORITE 015154