(copies of this edn. have been recalled for correction)

(Not not required) (Does not contain [illegible])

PRODUCTS 1961

Monsanto

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WATER_PCB-00032280

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MONSANTO CHEMICAL COMPANY

Monsanto Chemical Company is one of the largest chemical, plastics and petroleum products companies in America. The company is "basic" in phosphorus and phosphates, plastics, petroleum products and many organic chemicals . . . relying on no other company for raw materials. As a basic producer, supplies of chemicals, plastics and petroleum products from Monsanto are stable in price and the user is most assured of steady, dependable delivery.

Monsanto is organized into seven divisions, each operating in the production, sales and servicing of its own groups of products. These divisions are:

COVER DESIGN [illegible]

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the organic chemicals division

. . . with headquarters at St. Louis, Missouri, produces a wide array of chemicals for industry and agriculture. These include fine chemicals, chemical intermediates, plasticizers, agricultural chemicals, petroleum additives, resin materials, paper chemicals, functional fluids, aviation fluids, industrial fluids and rubber chemicals. The Organic Chemicals Division maintains complete research and development facilities and each department provides its customers with technical service on the products sold.

the inorganic chemicals division

. . . with headquarters at St. Louis, Missouri, maintains extensive research, manufacturing and marketing facilities to serve an increasingly broad spectrum of industry and agriculture. As the world's largest producer of elemental phosphorus, the Division markets such diverse phosphate materials as leavening agents, detergent "builders," food and feed additives. It also produces a full family of anionic and nonionic surface active agents; basic processing chemicals like sulfuric and muriatic acids; silica specialties serving paint and packaging, industrial floor wax and foundry customers; electronic chemicals including ultrapure silicon metal and intermetallic compounds. Serving agriculture are the Division's fertilizer manufacturing solutions and ready-to-use "Lion" brand nitrogen fertilizers: ammonium nitrate, urea and anhydrous ammonia.

the plastics division

. . . with headquarters at Springfield, Massachusetts, is one of the most diversified producers of resins and plastics in the country. The Plastics Division produces its own basic monomers for styrene, ethylene, vinyl and acrylonitrile polymers and copolymers and offers molders, coaters, extruders and fabricators a wide variety of plastics compositions. Among these are styrene-type plastics; phenolformaldehyde resins and plastics; melamines, cellulosics, polyethylene and vinyl butyral compositions for

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TOWOLDMON0041236
WATER_PCB-00032282

molding, coating, extruding, laminating and impregnating. Monsanto is a pioneer in compositions for safety glass inter-layer and a major supplier of polystyrene molding compounds.

the overseas division

. . . with headquarters at St. Louis, Missouri, markets all the company's products for export. All Monsanto products for overseas purchase can be obtained through this division.

the research and engineering division

. . . with headquarters at St. Louis, Missouri, offers engineering and construction facilities in the erection of vanadium-catalyst sulfuric acid plants (which can convert any primary or waste source of sulfur to acid) and De Nora Cell chlorine plants.

the lion oil company division

. . . with headquarters at El Dorado, Arkansas, engages in all phases of oil activity including exploration, production, research, manufacturing and marketing. The more than 90 Lion products include gasolines, Naturalube motor oils, paving and roofing asphalts, protective coatings and hydrocarbons for petrochemical manufacturing.

the domestic subsidiaries and affiliates division

. . . with headquarters at St. Louis, Missouri, administers Monsanto's interests in its domestic subsidiary, associated and affiliated companies.

Monsanto products are produced, sold and serviced from plants and sales offices located throughout the world. Subsidiary companies are located in Canada, Great Britain, Argentina, Australia, Japan, and Mexico.

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Trade-marks which are registered in the U. S. Patent Office are marked with an asterisk (*). Registered trade-marks must be identified when they appear in print. This can be done either by the statement that they are registered marks; by use of an asterisk after the trade-mark referring to the abbreviated notice, "Reg. U. S. Pat. Off," or a footnote or the letter R enclosed within a circle, thus ®, following the mark.

PRODUCTS INDEX

AGRICULTURAL and FARM CHEMICALS

FEED SUPPLEMENTS

	Division	Page
Methionine Hydroxy Analogue ("MHA")* (Calcium salt of DL-alpha-hydroxy-gamma-methylmercaptobutyric acid)	Organic	8
Urea, Feed Grade Coated Microprills	Inorganic	8

FERTILIZERS

Nitrogen Fertilizer Solutions	Inorganic	8
"Tri-Una-Sol"	Inorganic	8
Ammonium Nitrate Fertilizer Pellets	Inorganic	8
Ammonium Nitrate Fertilizer "E-2"* Pellets	Inorganic	8
Ammonium Nitrate 83% Solution	Inorganic	8
Ammonia, Aqua	Inorganic	8
Ammonia, Anhydrous	Inorganic	8
Phosphate Feed Solution	Inorganic	9
Phosphate Fertilizer Solution	Inorganic	9
Phospholeum (Pyro-Phosphoric Acid or Super Phosphoric Acid)	Inorganic	9
Urea, Fertilizer Grade Coated Pellets	Inorganic	9
Urea, Fertilizer Grade Uncoated Pellets	Inorganic	9

HERBICIDES/WEED KILLERS

Herbicidal Oil No. 1	Lion Oil	9
Herbicidal Oil Nos. 6 and 7	Lion Oil	9

INSECTICIDES

"Santochlor"* (para-Dichlorobenzene)	Organic	9

ELECTRONIC CHEMICALS

Gallium Arsenide — Electronic Grade	Inorganic	9
Indium Arsenide — Electronic Grade	Inorganic	10
"OS-45"* Type III High Temperature Aircraft Hydraulic Fluid	Organic	10
"OS-45"* Type IV High Temperature Aircraft Hydraulic Fluid	Organic	10
Silicon Metal — Electronic Grade	Inorganic	10

HEAVY CHEMICALS

ALUMINUM SULFATES

Aluminum Sulfate Commercial Dry	Inorganic	10
Aluminum Sulfate Commercial Liquid	Inorganic	10
Aluminum Sulfate Iron Free	Inorganic	10

SODIUM SULFATES

Salt Cake (Sodium Sulfate, Anhydrous Technical)	Inorganic	10
Sodium Bisulfate (Nitre Cake)	Inorganic	10

SODIUM SULFITES

Sodium Sulfite Anhydrous Technical ("Santosite")*	Inorganic	10
Sodium Bisulfite Anhydrous (Also known as Sodium Meta-bisulfite)	Inorganic	11

SULFURIC ACIDS

Sulfuric Acid	Inorganic	11
Battery Acid (Electrolyte)	Inorganic	11
Vanadium Sulfuric Acid Catalyst	Eng. Sales	11

OTHER HEAVY CHEMICALS

Aluminum Chloride Solution 32° Bé	Inorganic	11
Bone Ash	Inorganic	11
Slag, Calcium Silicate	Inorganic	11
Carbon Dioxide	Inorganic	11
Caustic Potash	Inorganic	11
Lampblack	Inorganic	12
Muriatic Acid (Hydrochloric Acid)	Inorganic	12
Nitric Acid	Inorganic	12
Mixed Acid (Nitrating Acid)	Inorganic	12
Sulfur Dioxide, Liquid	Inorganic	12
Sulfur Trioxide Stabilized Liquid ("Thiosul")*	Inorganic	12

ORGANIC CHEMICALS

ANISIDINES

para-Anisidine (Also known as para-methoxy-aniline and para-aminoanisole)	Organic	12

CHLOROANILINES

meta-Chloroaniline (Also known as meta-amino-chlorobenzene and 3-chloro-aminobenzene)	Organic	12
Ortho-Chloraniline (Also known as ortho-amino-chlorobenzene and 2-chloroaminobenzene	Organic	13
para-Chloraniline (Also known as para-amino-chlorobenzene and 4-chloro-amino-benzene)	Organic	13

CHLOROPHENOLS

ortho-Chlorophenol (Also known as 2-chloro-hydroxybenzene and 2-chloro-hydroxybenzene)	Organic	13
para-Chlorophenol (Also known as para-hydroxy-chlorobenzene and 4-chloro-hydroxybenzene)	Organic	13
2, 4-Dichlorophenol, Technical (Also known as 2, 4-dichloro-hydroxy-benzene)	Organic	13

CYCLOHEXYL COMPOUNDS

Cyclohexylamine (also known as hexahydroaniline)	Organic	13
Dicyclohexylamine	Organic	13

NITROCHLOROBENZENES

ortho-Nitrochlorobenzene (Also known as ortho-chloronitrobenzene)	Organic	14
para-Nitrochlorobenzene (Also known as para-chloronitrobenzene)	Organic	14

PHENETIDINES

ortho-Phenetidine (Also known as ortho-aminophenylethyl ether, ortho-aminophenetole and 2-aminoethoxy-benzene)	Organic	14
para-Phenetidine (Also known as para-aminophenylethyl ether, para-aminophenetole and 4-aminoethoxy-benzene)	Organic	14

PHTHALIC ANHYDRIDES

Phthalic Anhydride	Organic	14
Monochlorophthalic Anhydride (Mixture of 3-chloro and 4-chloro isomers)	Organic	14

SULFONATES

Methyl Toluenesulfonate (Mixture of ortho and para isomers)	Organic	15
Sodium meta-Nitrobenzene Sulfonate, Technical	Organic	15

SULFONIC ACIDS

Chlorosulfonic Acid	Inorganic	15
Phenolsulfonic Acid (65+% para isomer; remainder ortho isomer)	Organic	15
Toluenesulfonic Acid, Technical (Mixture of about 80% para and 20% ortho isomers)	Organic	15

PHARMACEUTICALS

Acetophenetidin U.S.P. (Also known as phenacetin)	Organic	15
Acetylsalicylic Acid, U.S.P. (Aspirin)	Organic	15

BENZOATES

Benzyl Benzoate, U.S.P.	Organic	16
Sodium Benzoate	Organic	16
Caffeine, U.S.P.	Organic	16

METHAPYRILENES

Methapyrilene Hydrochloride (Thenylpyramine Hydrochloride) (N, N-dimethyl-N'-2-pyridyl-N'-2-thenylethylene-diamine hydrochloride)	Organic	16
Methapyrilene Fumarate (Thenylpyramine Fumarate)	Organic	16
Phenolphthalein, U.S.P.	Organic	16
Phenolphthalein, Yellow, Not U.S.P.	Organic	17

SALICYLATES

Salicylic Acid, U.S.P.	Organic	17
Salicylate, Sodium, U.S.P.	Organic	17

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TOWOLDMON0041238
WATER_PCB-00032284

OTHER ORGANIC CHEMICALS

	Division	Page
Acrylonitrile	Plastics	17
Adipic Acid	Organic	17
Benzoic Acid	Organic	17
Benzyl Chloride (Also known as alpha chloro-toluene)	Organic	17
Benzyl Chloride, Stabilized	Organic	18
Biphenyl (Also known as diphenyl and phenylbenzene)	Organic	18
Bisphenol A	Organic	18
Dihydroxy Diphenyl Sulfone (Also known as sulfonyl bis phenol)	Organic	18
Dodecylbenzene (Alkyl Benzene)	Inorganic	18
"Formaldehyde"	Plastics	18
Fumaric Acid	Organic	18
H Acid (8-Amino-1-naphthol-3-6-Sodium Acid Disulfonate)	Organic	19
Maleic Anhydride	Organic	19
"Methanol"	Plastics	19
Methyl Salicylate U.S.P. (Synthetic)	Organic	19
ortho-Nitroaniline (Also known as ortho-amino-nitrobenzene)	Organic	19
para-Nitrophenol (Also known as para-hydroxy-nitrobenzene)	Organic	19
para-Toluenesulfonamide (Also known as para-toluene-sulfonic acid amide and para-sulfonamido-toluene)	Organic	19
para-Toluenesulfonyl Chloride	Organic	19
Phenol (Also known as carbolic acid and hydroxybenzene)	Organic	20
Phthalyl Chloride (Phthaloyl Chloride)	Organic	20
Salicylic Acid (ortho-Hydroxy-benzoic Acid)	Organic	20
"Styrene Monomer"	Plastics	20
Trichlorbenzene (Alkyl Benzene)	Inorganic	20
Vinyl Chloride Monomer	Plastics	20

PHOSPHORUS and PHOSPHORUS DERIVITIVES

AMMONIUM PHOSPHATES

Ammonium Phosphate, Mono	Inorganic	20
Ammonium Phosphate, Di	Inorganic	21
Ethyl Ammonium Phosphate	Inorganic	21
Triethylammonium Phosphate	Inorganic	21

CALCIUM PHOSPHATES

"H. T."* Monocalcium Phosphate	Inorganic	21
"Py-Ran"* Anhydrous Monocalcium Phosphate	Inorganic	21
Dicalcium Phosphate Anhydrous	Inorganic	21
Dicalcium Phosphate, Dihydrate	Inorganic	21
Dicalcium Phosphate, Feed Grade	Inorganic	21
Tricalm Phosphate	Inorganic	21
Calcium Pyrophosphate	Inorganic	22

SODIUM PHOSPHATES

Monosodium Phosphate	Inorganic	22
Disodium Phosphate, Anhydrous	Inorganic	22
Disodium Phosphate, Dihydrate	Inorganic	22
Trisodium Phosphate, Anhydrous	Inorganic	22
Trisodium Phosphate, Crystal	Inorganic	22
Tetrasodium Pyrophosphate	Inorganic	22
Sodium Tripolyphosphate	Inorganic	22
Sodium Acid Pyrophosphate	Inorganic	22
Sodium Hexametaphosphate	Inorganic	23
"Olifos"* Glassy Sodium Phosphate	Inorganic	23
"SQ"* Phosphate	Inorganic	23

OTHER PHOSPHORUS AND PHOSPHORUS DERIVATIVES

Alkyl Acid Phosphates	Inorganic	23
"Alkophos"*	Inorganic	23
Ferrophosphorus	Inorganic	23
Monopotassium Phosphate	Inorganic	23
Phosphoric Acid	Inorganic	23
Phosphorus, Elemental	Inorganic	23
Phosphorus Oxychloride	Inorganic	24
Phosphorus Pentasulfide	Inorganic	24
Phosphorus Pentoxide	Inorganic	24
Phosphorus Trichloride	Inorganic	24
Tetrapotassium Pyrophosphate	Inorganic	24
Triphenyl Phosphate	Organic	24
Tripotassium Phosphate	Inorganic	24
For Phosphate Fertilizers, see "Agricultural and Farm Chemicals"	Inorganic	9
For Phosphate Plasticizers, see "Plastics, Resins, Plasticizers"	Organic	44

LION PETROLEUM PRODUCTS/ CHEMICALS.

GASOLINES

Lion Premium Gasoline With "Lionite"*	Lion	25
Lion Regular Gasoline With "Lionite"*	Lion	25
Premium Gasoline (unbranded)	Lion	25
Regular Gasoline (unbranded)	Lion	25

OILS–LUBRICATION

	Division	Page
All-Purpose Gear Lubricant	Lion	25
Azalea Oil	Lion	25
Brute Oil	Lion	25
Blaco	Lion	25
Coda Oil	Lion	25
Cylinder Oil — Compounded and Mineral	Lion	25
Gear Lubricant Mineral	Lion	25
"Naturalube"* Automatic Transmission Fluid	Lion	25
Rock Drill Lubricant	Lion	26
Steering Gear Lubricant	Lion	26

GREASES–LUBRICATION

AG Track Roller Grease	Lion	26
Barium 4-in-1 Grease	Lion	26
Chassis Grease "S" & "W"	Lion	26
Cotton Picker Spindle Grease	Lion	26
Lava Compound	Lion	26
Multi-Purpose AF Grease	Lion	26
Premium Wheel Bearing and Universal Joint Grease	Lion	26

OILS–LIGHT

Aromatic Oils	Lion	26
Burner Oil	Lion	26
Butane-Propane Mixture	Lion	26
Diesel Fuel	Lion	26
Ethylene	Lion	26
Herbicidal Oil No. 1	Lion	26
Herbicidal Oil Nos. 6 & 7	Lion	26
Ink Oil	Lion	26
Kerosene	Lion	27
Propane	Lion	27
Propylene	Lion	27
Propylene Tetramer	Lion	27
Residual Fuel Oil	Lion	27
Tractor Distillate	Lion	27

MOTOR OILS

"Naturalube"*	Lion	27
"Naturalube"* DHD	Lion	27
"Naturalube"* DHD Super Duty	Lion	27
"Naturalube"* Heavy Duty	Lion	27
"Naturalube" Multi-Temp"*	Lion	27
"Naturalube"* Outboard Motor Oil	Lion	27
"Tiger"*	Lion	27

LION NOKORODE PRODUCTS

Brush Cement	Lion	27
Car Cement	Lion	27
Chassis Black	Lion	28
Coach Builders Sound Deadener	Lion	28
Couch Builders Undercoating	Lion	28
Construction Asphalts	Lion	28
Cork Undercoating	Lion	28
"D-41 Primer"*	Lion	28
"E Kote"*	Lion	28
9G51A	Lion	28
Government Rust Preventatives	Lion	28
Industrial Sound Deadener	Lion	28
"K Kote"*	Lion	28
"Low Temp"*	Lion	29
82-S	Lion	29
Seam and Backing Cement	Lion	29
"Seal Kote"*	Lion	29
"Seal Prime"*	Lion	29
"Seal Perm"*	Lion	29
Sign Kote	Lion	30
Undercar Sealer and Silencer	Lion	30
No. 2002 Undercoating and Sound Deadener	Lion	30
Vehicle	Lion	30

LION ASPHALT PRODUCTS

Acid-Proof Asphalt Coating	Lion	30
Asbestos Asphalt Roof Coating	Lion	30
Asbestos Roof Coating "Lion Federal"	Lion	30
Asphalt Aluminum Vehicle	Lion	30
Asphalt Plastic Cement	Lion	30
Asphalt Roof Coating	Lion	30
Blind Nailing Cement	Lion	31
Code 2 Primer	Lion	31
"Colag" Paving Asphalt	Lion	31
Cold Process Lap Cement	Lion	31
Corkboard Erection Asphalt	Lion	31
Crude — Top Coating	Lion	31
"D-30"* Joint Compound	Lion	31
Dead Level Roofing Asphalt	Lion	31
Dry-Kote Mastic	Lion	31
"E-150"* Asphalt	Lion	31
Flux Oils	Lion	31
Membrane Lining	Lion	32
Metal Coating No. 3	Lion	32
Paper Laminant	Lion	32
Paving Asphalts	Lion	32
Pole Compound	Lion	32
Road Oil [illegible]	Lion	[illegible]
Roof Repair Asphalt	Lion	[illegible]

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TOWOLDMON0041239
WATER_PCB-00032285

PETROLEUM ADDITIVES

	Division	Page
"Santolene C"* Fuel Oil Additive	Organic	33
"Santolene F"* Fuel Oil Additive	Organic	33
"Santolene F-C"* Fuel Oil Additive	Organic	33
"Santolene H-LV"* Fuel Oil Additive	Organic	33
"Santolene J"* Fuel Oil Additive	Organic	33
"Santolube 70"* Oil Additive	Organic	33
"Santolube 200-C"* Oil Additive	Organic	33
"Santolube 333"* Oil Additive	Organic	33
"Santolube 392"* Oil Additive	Organic	33
"Santolube 396"* Oil Additive (Zinc Dialkyl Dithiophosphate)	Organic	33
"Santolube 443-C"* Oil Additive	Organic	33
"Santolube 395-X"* Oil Additive	Organic	33
"Santolube 401"* Oil Additive	Organic	34
"Santolube 410"* Oil Additive	Organic	34
"Santopoid 22"* Gear Oil Additive	Organic	34
"Santopoid 22-H"* Gear Oil Additive	Organic	34
"Santopoid 33-R"* Gear Oil Additive	Organic	34
"Santopoid 36"* Oil Additive	Organic	34
"Santopoid 101"* Gear Oil Additive	Organic	34
"Santopoid S"* Oil Additive	Organic	34
"Santopour C"* Oil Additive	Organic	34

PLASTICS/RESINS/PLASTICIZERS

STYRENE RESINS/PLASTICS

"Lustrex"* Styrene	Plastics	34
"Lustrex"* Styrene	Plastics	35
"Lytron"*	Plastics	35
"Lytron"*	Plastics	35
"Lytron"*	Plastics	35
"Lytron" Synthetic	Plastics	35
"Scripto"* Setsol 50-52-54		
Styrene Copolymers	Plastics	35
"Stymer"* Vinyl Styrene	Plastics	35

VINYL RESINS/PLASTICS

"Opalon"* Vinyl Chloride	Plastics	35
"Opalon"* Vinyl Chloride	Plastics	36
"Sadex"* Vinyl Butyral	Plastics	36
"Styvar" Vinyl Styrene	Plastics	36
"Ultron"* Vinyl Chloride (Rigid Sheets)	Plastics	36
"Ultron"* Vinyl Chloride (Flexible Film and Sheeting)	Plastics	36

POLYETHYLENES

"Monsanto Polyethylene"*	Plastics	36
"Monsanto Polyethylene"*	Plastics	36
"Monsanto Polyethylene"*	Plastics	37

PHENOLIC RESINS

"Resinox"* Phenolic (Lump and Resin Compound)	Plastics	37
"Resinox"* Liquid Phenolic Resins	Plastics	37
"Resinox"* Phenolic Varnishes	Plastics	37
"Resinox"*	Plastics	37

MELAMINE RESINS

"Resimene"*	Plastics	37
"Resimene"* Melamine	Plastics	37
"Resleom"* Essentially Monomeric Melamine	Plastics	37
"Resleom"* E-50	Plastics	38
"Scripto"* 33 Melamine Formaldehyde	Plastics	38
"Scriptite"* 40 Urea — Formaldehyde	Plastics	38

CELLULOSIC RESINS/PLASTICS

"Vuepak"* Cellulose Acetate	Plastics	38

COAL TAR RESINS

"Montar"* Synthetic Resins	Organic	38

SULFONAMIDE RESINS

"Santolite"* MS (80%) Industrial Resin	Organic	38

RESIN INTERMEDIATES

Dibutyl Fumarate	Organic	38
Dibutyl Maleate	Organic	38

FORMALDEHYDE RESINS

Urea, Ind. Grade Uncoated Pellets	Inorganic	39

PLASTICIZERS

Dibutyl Phthalate	Organic	39
Diethyl Phthalate	Organic	39
Dimethyl Phthalate	Organic	39
Diphenyl Phthalate	Organic	39
Di-2 ethyl hexyl sebacate (DOA)	Organic	39
[illegible]	[illegible]	[illegible]
Di-n-octyl-decyl Phthalate (D. O. P.)	Organic	40
Diisooctyl Phthalate (DIOP)	Organic	40
"Dytrol"* (paint brush conditioner)	Organic	40
Triphenyl Phosphate	Organic	40
Tricresyl Phosphate	Organic	40
Diisooctyl Adipate (DIDA)	Organic	41
Diisooctyl Tetralate (DIDP)	Organic	41
Dicyclohexyl Phthalate (DCHP)	Organic	41
"Mod-Epox"*	Organic	41
"Santonox"*	Organic	41
"Santonox" R	Organic	41
"Santowax"* R	Organic	41

SANYICIZER PLASTICIZERS

"Santicizer"* 160 Plasticizer (Butyl Benzyl Phthalate)	Organic	42
"Santicizer"* 278 Plasticizer	Organic	42
"Santicizer" 607 Plasticizer (Di-2-Ethyl Hexyl Phthalate)	Organic	42
"Santicizer" 711 Plasticizer (Butyl Decyl Phthalate)	Organic	42
"Santicizer"* 9 Plasticizer (Mixture of ortho and para-Toluene Sulfonamides)	Organic	42
"Santicizer"* 3 Plasticizer N-Ethyl para-Toluene Sulfonamide)	Organic	42
"Santicizer"* 8 Plasticizer (Mixture of N-Ethyl-ortho- and para-Toluene-sulfonamides)	Organic	43
"Santicizer"* 1-H Plasticizer (N-cyclohexyl para-Toluenesulfonamide)	Organic	43
"Santicizer"* M-17 Plasticizer (Methyl Phthalyl Ethyl Glycolate)	Organic	43
"Santicizer"* E-15 Plasticizer (Ethyl Phthalyl Ethyl Glycolate)	Organic	43
"Santicizer"* B-16 Plasticizer (Butyl Phthalyl Butyl Glycolate)	Organic	43
"Santicizer"* 141 Plasticizer (Mixed Cresyl Phenyl Phosphates)	Organic	44
"Santicizer"* 141 Plasticizer (Alkyl Aryl Phosphate)	Organic	44
"Santicizer"* 165 (Mixed alcohol phthalate)	Organic	44
"Santicizer"* 214	Organic	44
"Santicizer"* 216 Plasticizer	Organic	44
"Santicizer"* 409 Polymeric Plasticizer	Organic	44
"Santicizer"* 430 Modified-Phthalate Plasticizer	Organic	44
"Santicizer"* 431 Modified-Phthalate Plasticizer	Organic	45
"Santicizer"* 698 (2-ethylhexyl isodecyl phthalate)	Organic	45
"HB-20"* Partially Hydrogenated Alkyl-Aryl Hydrocarbon	Organic	45
"HB-40"* Partially Hydrogenated Terphenyl	Organic	45

RUBBER CHEMICALS

ACCELERATORS FOR NATURAL AND SYNTHETIC RUBBERS

THIOZOLE TYPE

"El-Sixty"* (1, 3-bis (2-benzothiazolyl-mercaptomethyl) urea)	Organic	45
"Santocure"* (N-cyclohexyl-2-benzothiazolesulfenamide)	Organic	45
"Santocure" NS (N-tert-butyl-2-benzothiazolesulfenamide)	Organic	45
"Thiotuc"* (MBTS) (2, 2'-dithiobis (benzothiazole); also called benzothiazyl disulfide and 2, 2'-dibenzothiazyl disulfide)	Organic	45
"Thiotax"* (MBT) (2-mercaptobenzothiazole)	Organic	45
"Mertax"* (MBT) (2-mercaptobenzothiazole)	Organic	46

ALDEHYDE AMINE TYPE

"A-32"* (Reaction product of butyraldehyde and butylidene aniline)	Organic	46
"A-100"* (Reaction product of butyraldehyde, acetaldehyde and aniline)	Organic	46

ULTRA TYPE

"RZ-50-A" (50% Solution in Cellosolve of the N, N-dimethylcyclohexylamine salt of dibutyldithiocarbamic acid)	Organic	46
"RZ-50-B" (50% Solution in Cellosolve of the N, N-dimethylcyclohexylamine salt of dibutyldithiocarbamic acid, with antioxidant added)	Organic	46
"R-2"* (Reaction product of carbon disulfide and 1, 1'-methylenedipiperidine)	Organic	46
"Monex"* (Bis-dimethylthiocarbamyl) sulfide; also called tetramethylthiuram monosulfide)	Organic	46
"Ultrex"* (dimethylthiocarbamyl) disulfide; also called tetramethylthiuram disulfide)	Organic	46
Accelerator B	Organic	46

TOWOLDMON0041240
WATER_PCB-00032286

	Division	Page
GUANIDINE TYPE		
ppG (Diphenylguanidine)	Organic	46
"Guanid"* (Diphenylguanidine phthalate)	Organic	46
THIOCARBANILIDE TYPE		
A-1 Thiocarbanilide (Also called 1,3-diphenyl-2-thiourea and N, N'-diphenylthiourea)	Organic	46
ANTIOXIDANTS AND ANTIOZONANTS		
"Flectol"* H (Polymerized 1, 2-dihydro-2, 2, 4-trimethylquinoline)	Organic	47
"Santoflex"* AW (6-ethoxy-1, 2-dihydro-2, 2, 4-trimethylquinoline)	Organic	47
"Santoflex"* DD (6-Dodecyl-1, 2-dihydro-2, 2, 4-trimethylquinoline)	Organic	47
"Santoflex"* 75 (Mixture of N, N'-diphenyl-p-phenylenediamine (DPPD), 75%, and 6-dodecyl-1, 2-dihydro-2, 2, 4-trimethylquinoline (Santoflex DD), 25%)	Organic	47
"Santovar"* A (2, 5-di-tert-amyl hydroquinone)	Organic	47
"Santowhite"* Crystals (4, 4'-thiobis-(6-tert-butyl-m-cresol))	Organic	47
"Santowhite"* L (Essentially thiobis-(6-sec-amyl-o-cresol))	Organic	47
"Santowhite"* MH (Reaction of product of 6-tert-butyl-m-cresol and SCl_2)	Organic	47
"Santowhite"* Powder (4, 4'-butylidenebis (6-tert-butyl-m-cresol))	Organic	47
SPECIAL MATERIALS		
"Sulfasan"* R (4, 4'-dithiodimorpholine)	Organic	47
"Elastopar"* (N-Methyl-N, 4-dinitrosoaniline (33⅓%) plus Whitetex Clay (66⅔%))	Organic	47
"Insoluble Sulfur 60"*	Organic	47
Odors and Deodorants	Organic	48

SPECIALTY PRODUCTS

	Division	Page
ADHESIVES		
Casein and Soybean Adhesives	Plastics	48
Phenolic and Resorcinol Resins	Plastics	48
Urea and Melamine Resins	Plastics	48
ANTI-FOAMING AGENTS		
Defoamer "PC-1214"*	Organic	48
ANTIOXIDANTS		
"Santoquin"* (6 Ethoxy 1, 2-Dihydro 2, 2, 4-Tri-methyl Quinoline)	Organic	48
"Sopanox"* ortho-Tolyl Biguanide	Organic	48
CURING AGENTS		
Catalysts	Plastics	49
FLAVORINGS		
"Vanillin Monsanto"* (Vanillin U.S.P.; also known as methylprotocatechuic aldehyde and 3-methoxy-4-hydroxybenzaldehyde)	Organic	49
"Ethavan"* (Ethyl Vanillin)	Organic	49
FILLERS/BODYING AGENTS		
"Santocel"* Silica Aerogel for Industrial Applications	Inorganic	49
"Santocel"* Silica Aerogel for Thermal Insulation	Inorganic	49
"Syton"* AS-30 Colloidal Silica	Inorganic	49
"Syton"* C-30 and C-30 Colloidal Silica	Inorganic	49
"Syton"* DS and D-30 Colloidal Silica	Inorganic	50
"Syton"* P and P-30 Colloidal Silica	Inorganic	50
"Syton"* W-200 Colloidal Silica	Inorganic	50
FUNCTIONAL FLUIDS		
"Aroclor"* Polychlorinated Polyphenyls	Organic	50
"Coolanol 45"* Dielectric Coolant for Electronic Equipment	Organic	50
"Pydraul F-9"* Functional Fluid	Organic	50
"Pydraul 60"* Functional Fluid	Organic	50
"Pydraul 150"* Functional Fluid	Organic	51
"Pydraul 625"* Functional Fluid	Organic	51
"Pydraul A-200"* Functional Fluid	Organic	51
"Pydraul AC"* Functional Fluid	Organic	51
"Skydrol 500-A"* Fire Resistant Jet Aircraft Hydraulic Fluid	Organic	51
"Skydrol 7000"* Fire Resistant Aircraft Hydraulic Fluid	Organic	51
GERMICIDES/FUNGICIDES/DISINFECTANTS		
"Actamer"* (2, 2'-thiobis-(4, 6-dichlorophenol))	Organic	51
Chloramine-T, N.F. (Also known as N-sodium-N-chloro-para-toluenesulfonamide)	Organic	51
"Monsanto Penta"* (Pentachlorophenol, Technical)	Organic	51
"Santobrite"* Sodium Pentachlorophenate, Technical	Organic	52
"Santophen"* 1 Germicide (ortho-benzyl-patachlorophenol)	Organic	52
"Santophen"* 1 Solution (75% Santophen 1, 25% isopropanol)	Organic	52
TCC (3, 4, 4'-Trichlorocarbanilide)	Organic	52
ODORANTS		
"Santomask"* H Odor-Masking Agent	Organic	52
"Coumarin Monsanto"* (Coumarin, N.F.)	Organic	52
"Vanillin Monsanto"* (Vanillin U.S.P.; also known as methylprotocatechuic aldehyde and 3-methoxy-4-hydroxybenzaldehyde)	Organic	52
Methyl Salicylate U.S.P. (Synthetic)	Organic	53
PAINT/COATING VEHICLES		
"Santomask"* H Odor-Masking Agent	Organic	53
"Benthal"* Alkyd Resin Intermediate	Organic	53
"D.P. Solution"* (Dibutylamine Pyrophosphate)	Inorganic	53
"Mertone"* WB-4 Precoat for Reproduction Papers	Inorganic	53
SIZING AGENTS, PAPER		
"Mersize"* Paper Sizing Agent	Organic	53
SWEETENERS		
Saccharin, U.S.P. (Also known as saccharin insoluble, and ortho-sulfonbenzimide)	Organic	53
Saccharin, Sodium, U.S.P. (Also known as soluble saccharin and sodium ortho-sulfobenzimide)	Organic	54
TANNING AGENTS		
"Santotan"* KR Basic Chrome Sulfate	Inorganic	54
Zinc Oxide, Technical	Inorganic	54

SURFACE ACTIVE AGENTS, DETERGENTS and ACL PRODUCTS

	Division	Page
ANIONIC SURFACE ACTIVE AGENTS		
DDBSA (Dodecylbenzene Sulfonic Acid)	Inorganic	54
DDBSA-94	Inorganic	54
"Santomerse"* Alkyl Aryl Sulfonates	Inorganic	54
NONIONIC SURFACE ACTIVE AGENTS		
"Sterox"* AJ	Inorganic	55
"Sterox"* AJ-100	Inorganic	55
"Sterox"* AP	Inorganic	55
"Sterox"* AP-100	Inorganic	55
"Sterox"* CD	Inorganic	55
"Sterox"* DF	Inorganic	55
"Sterox"* DJ	Inorganic	55
"Sterox"* NJ	Inorganic	55
"Sterox"* NL	Inorganic	55
"Sterox"* SK	Inorganic	55
"Sterox"* No. 6	Inorganic	55
BLEACHING COMPOUNDS		
"ACL"*	Inorganic	55

When product literature is indicated as available, address requests to:

MONSANTO CHEMICAL COMPANY
Department C
800 North Lindbergh Boulevard
St. Louis 66, Missouri

0557506

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GENERAL INFORMATION: Colloidal dispersion of silica in water. Will freeze at 32°F. and the silica is precipitated forever thereafter.

USES: Anti-blocking agent in paper finishes. Glass coating agent in water systems. Inert, non-fibrous filler in rubber latex dispersions. Improves tear resistance of latex film at 1 lb. per cu. Surface hardens water in concentrating tanks. Suspending agent for pigments in water systems. Mold lubricant. Binder for precision casting molds. Flame retarding agent for water-based paints.

SHIPPING INFORMATION: Colloidal Silica, liquid (NB: Freezes 30°F. Keep from freezing). 550-lb. drums.

"SYTON" DS AND DS-200 COLLOIDAL SILICA

INORGANIC DIVISION—LITERATURE AVAILABLE

GENERAL INFORMATION: Extremely fine colloidal aqueous dispersions of silica. In textile spinning: controls the slippage between fibers, thereby increasing tensile strength of spun yarns, permitting less twist in some cases, or fewer breaks during spinning and weaving. In textile finishing: controls slippage in woven rayons, gives dry worsted-like hand, defluxters in higher concentrations.

USES: Spinning, wet processing and finishing textiles.

SHIPPING INFORMATION: Colloidal Silica, liquid (NB: Freezes 32°F. Keep from freezing). 550-lb. drums.

"SYTON" P AND P-200 COLLOIDAL SILICA

INORGANIC DIVISION—LITERATURE AVAILABLE

GENERAL INFORMATION: The application of an extremely fine colloidal aqueous dispersion of silica applied either by spray or roller to multiwall paper bags or most any type of paperboard boxes will materially reduce slippage between the coated surfaces. "Syton" P is proving to be the most effective anti-skid agent.

USES: For use on paper containers to make slip-resistant coatings.

SHIPPING INFORMATION: Colloidal Silica, liquid (NB: Freezes 32°F. Keep from freezing). 550-lb. drums.

"SYTON" W-200 COLLOIDAL SILICA

INORGANIC DIVISION—LITERATURE AVAILABLE

GENERAL INFORMATION: "Syton" W-200 is an extremely fine colloidal aqueous silica dispersion and is used in wax emulsions primarily to give anti-slip properties to the wax applications.

USES: For use as an anti-slip agent in wax emulsion polishing compounds.

SHIPPING INFORMATION: Colloidal Silica, liquid (NB: Freezes 32°F. Keep from freezing). 550-lb. drums.

"AROCLOR" POLYCHLORINATED POLYPHENYLS

ORGANIC DIVISION—LITERATURE AVAILABLE

STANDARD FORM: Liquids, resins or solids.

PROPERTIES: Chlorinated aromatic hydrocarbons varying from water-white mobile liquids and pale yellow viscous oils to light amber resins and opaque crystalline solids. Refractive indices above 1.6125. In general are stable on long heating at 150°C.; not affected by boiling with sodium hydroxide solution. (The light oils can be distilled at atmospheric pressure without appreciable decomposition and the viscous oils and resins distill readily under vacuum.) Viscous oils and resins almost odorless and tasteless at ordinary temperatures.

GENERAL INFORMATION: Most "Aroclor" materials flux readily with resinous and pitch-like materials to give products having a decreased fire hazard. (Viscous oils and resins do not support combustion when heated alone even at their boiling points—temperatures above 300°C.) All have excellent electrical characteristics, high dielectric strength and resistivity, low power factor; certain of the liquids have a high dielectric constant as compared with mineral oils. The oils and resins easily soluble in most common organic solvents and drying oils. Hard crystalline materials are, in general, less [illegible] and are stable to [illegible] and have excellent adhesive properties. All resins are thermoplastic, remain stable indefinitely unless no further condensation or [illegible] and [illegible]. Some resins [illegible] with other resins [illegible] to [illegible] or hardening [illegible]. The [illegible] are rather low vapor pressure [illegible] at 100°C. [illegible] F. [illegible] than 0.01 gm. per sq. in. of surface per month.

USES: Liquid "Aroclors" are used as dielectrics for condensers or capacitors and transformers. Solid "Aroclors" are used to [illegible] carbon [illegible] when combined with other plastic materials, the "Aroclors" are excellent sealers or impregnant cements for a variety of electrical apparatus, wire coatings and tape. "Aroclors" are used as plasticizers and resins in lacquers, [illegible] nitrocellulose, ethyl cellulose and cellulose acetate butyrate; [illegible] and varnish resins and oils and as plasticizers and [illegible] extenders for rubber-base paints, [illegible] chlorinated [illegible] styrene, butadiene and vinyls. In these protective coatings for metal, masonry and wood, "Aroclors" impart adhesion, resistance against moisture, acids, alkalies or other corrosive influence and they improve electrical insulating properties, durability and reduce flammability. They function as [illegible] in waterproofing compounds, wood preservative formulations, caulking compounds and putty. Employed in cementitious setting materials and cellulose products impregnated or laminated with asphaltic materials, the "Aroclors" plasticize the asphalt, reduce flammability and improve durability. For printing inks; in precision-casting waxes, floor waxes and other wax products. Used widely in synthetic adhesives including ethyl cellulose, styrene, vinyls and resin-base materials. "Aroclors" improve adhesion and resistance against corrosive influences. Selected liquid "Aroclors" are used as nonflammable hydraulic fluids for die-casting machines. They are used as operating media for thermostats. "Aroclors" are useful in cutting oils as extreme pressure lubricants, as high-temperature lubricants and as grinding fluids. "Aroclor" 1248 is employed as a nonflammable, liquid-phase, heat-transfer medium for continuous operation in closed systems at temperatures up to 300 C. and at normal atmospheric pressure.

SHIPPING INFORMATION: Resin Synthetic NOIDN without filler. 600-lb. steel drums; 300-lb. net fiber drums.

"COOLANOL 45" DIELECTRIC COOLANT FOR ELECTRONIC EQUIPMENT

ORGANIC DIVISION—LITERATURE AVAILABLE

STANDARD FORM: Liquid.

PROPERTIES: A clear, amber liquid with dielectric, heat transfer and hydraulic properties—over a −65°F. to 400°F. temperature range.

USES: Dielectric coolant for both airborne and ground environmental electronic equipment. Also utilized in hydraulic applications in electronic equipment.

SHIPPING INFORMATION: Chemicals NOIDN, 1-qt. cans; 1-gal. cans; 5-gal. cans; 54-gal. drums.

"PYDRAUL F-9" FUNCTIONAL FLUID

ORGANIC DIVISION—LITERATURE AVAILABLE

STANDARD FORM: Liquid.

TYPICAL ANALYSIS: Viscosity at 100°F.—245 SUS, 210°F.—45 SUS; moisture—0.20% max.; neutralization number (acid)—0.15 max.; sp. gr. at 25°/25°C.—1.275–1.295.

PROPERTIES: A light, amber, cloudy liquid; straight synthetic fire resistant fluid with excellent lubricity and pumping characteristics; non-corrosive, extremely stable to both heat and air; recoverable by filtration; designed for long service life.

USES: Fire resistant hydraulic fluid in die-casting machines, hydraulic presses, automatic welding machines and similar applications requiring a medium viscosity fluid.

SHIPPING INFORMATION: Hydraulic system fluids other than petroleum. 55-gal. steel drums and 5-gal. cans.

"PYDRAUL 60" FUNCTIONAL FLUID

ORGANIC DIVISION—LITERATURE AVAILABLE

STANDARD FORM: Liquid.

TYPICAL ANALYSIS: Viscosity at 100°F.—60 SUS, 210°F.—34 SUS; moisture—0.25% max.; neutralization number (acid)—0.15 max.; sp. gr. at 25°/25°C.—1.059–1.064.

PROPERTIES: A clear blue, oily, straight synthetic fire resistant hydraulic fluid with excellent lubricating and corrosive characteristics; highly resistant to mechanical shear and [illegible] known; inert to common metals of construction; an excellent fluid for low temperature operations.

USES: A fire resistant hydraulic fluid in systems requiring extremely low viscosity. Low viscosity is essential for high speed [illegible] requires [illegible] temperature properties [illegible]

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