

Product-Building for Profits with Monsanto Plasticizers

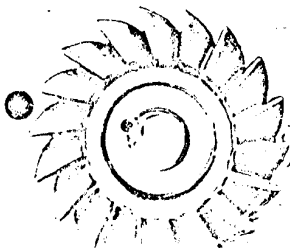
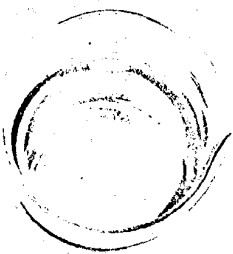
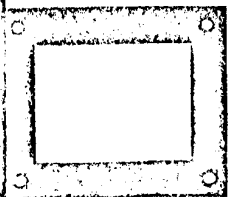
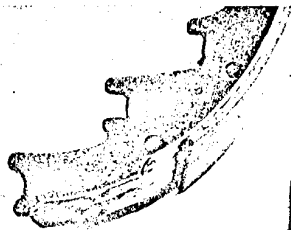
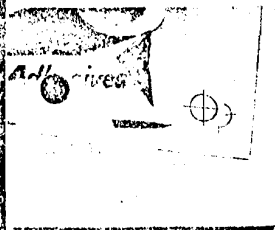
Your choice of plasticizers can be equally or more important than your resin selection. The right plasticizer, or combination of plasticizers, can help speed up production and cut your manufacturing costs. And it can substantially improve the quality of finished products.

Monsanto is America's most diversified supplier of plasticizers... manufacturer of SEVEN BASIC TYPES including almost FIFTY different plasticizers... YOUR BEST SOURCE for the widest selection of raw materials.

To reduce your raw material costs, call on

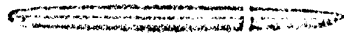
Monsanto for mixed shipment of plasticizers at "bulk" prices. And call on Monsanto for expert technical guidance—practical formulating know-how for vinyls, celluloses, styrene, phenolics, melamines, ureas, epoxies.

FOR FORMULATING INFORMATION on new products— or on improving established formulations—be sure to contact your Monsanto representative immediately. He can offer you "Plasticizers Council Service"—established by Monsanto to help you solve formulating problems quickly and at maximum profit to you.



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If Your Business Is... Celluloses, Phenolics, Polyamides



TOWOLDMON0034450

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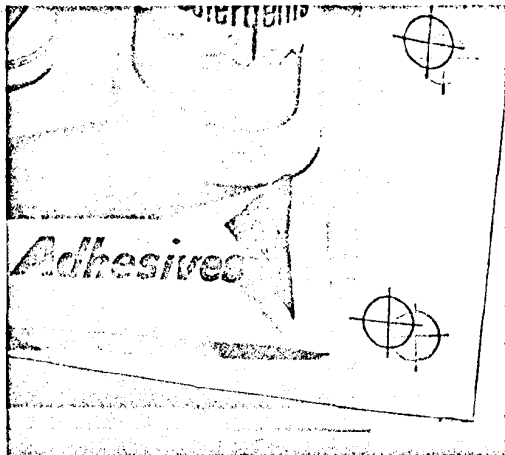
You can build product quality, reduce costs with . . .

for Cellulosics . . .

Higher Dimensional Stability for Acetate Sheetting

High dimensional stability is a must for acetate sheets used for preparing color-separation overlays for printing. If the sheets change dimensions before or during the making of engravings, final reproduction on the printed page will turn out "blurred"—or, as printers put it, "out of register." And remaking engravings can be both annoying and costly.

Santicizer M-17 is a *quality* plasticizer for cellulose acetate. Volatility is *low*—moisture resistance is *high*. These are main features contributing to excellent dimensional stability in the finished sheeting.



Lower-Cost Ethyl Cellulose Hot-Melt Coatings

Aroclor plasticizers (chlorinated polyphenyls) reduce both formulating and manufacturing costs for ethyl cellulose processors. They are excellent low-cost "extenders" for the higher-cost resins. And their high compatibility with ethyl cellulose speeds up processing.

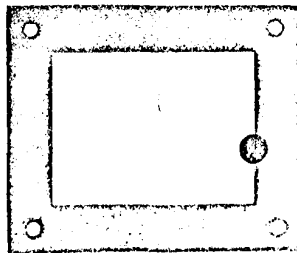
You can use the liquid-form Aroclors to build high *flexibility* in hot-melt coatings. The solid-form Aroclors increase *strength* and *hardness*.

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"Shatterproof" Punching Laminates

Santicizer 160 in phenolic laminating formulations helps build laminates that "take to" punching easier. It speeds up the punching operation, eliminates shattering around the punch holes, assures cleaner cuts. You turn out laminates that win more customer approval.

Punched laminates courtesy of Century Electric Company.



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Monsanto Plasticizers

Special Properties for Nitrocellulose Specialty Coatings

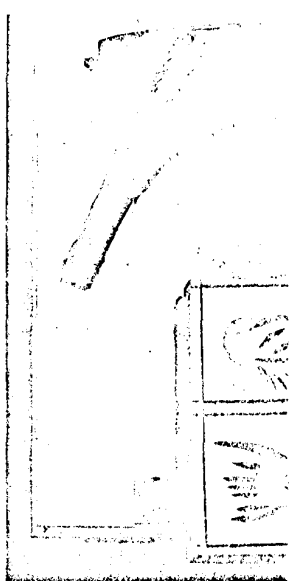
Monsanto offers a wide selection of plasticizers for controlling cost and performance of nitrocellulose coatings. Here are a few examples:

Higher Scuff Resistance . . . Aroclor 1254 builds *hardness and toughness* in nitrocellulose films—especially important in heel lacquers that must keep their good looks even when exposed to hard knocks, continual scuffing and abrasion.

Flame Retardance . . . Monsanto phosphate plasticizers such as Santicizer 140 contribute higher flame retardance to nitrocellulose coatings. This is important in many home and industrial uses.

Better Adhesion . . . Better Looks . . . Santolite MHP not only increases *adhesion*—it also improves *brilliance and gloss*. Its high *moisture resistance* helps eliminate danger of "water-spotting" of the finish.

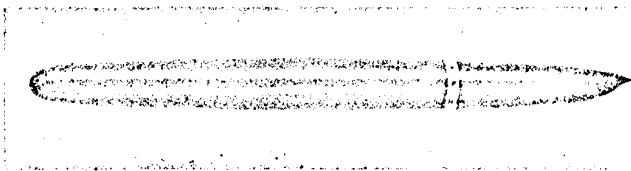
You can use Santolite MHP to increase *solids content* of lacquers without changing viscosity. Your customers will like this feature—it means that they can apply heavier films in fewer coats—a real cost-saver.



for Phenolics . . .

More Uniform Dispersing of Fillers

Santicizer 9 features high solvation. In phenolics, it helps disperse fillers (like asbestos) more uniformly. In compression or transfer molding formulations, it improves *flow* and cuts down molding cycles. Results: better product quality and lower costs.



for Polyamides . . .

Quality "Extender" for Nylon . . . When you "extend" nylon (or other polyamides) with Santicizer 8, you get much more than reduced raw material costs. Santicizer 8 *reduces the melting points of polyamides*. This is especially important in injection molding because it cuts molding costs. And Santicizer 8 increases *flexibility and toughness* in polyamides.

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Monsanto Plasticizers

Phthalates

Dibutyl phthalate
Diethyl phthalate
Dimethyl phthalate
Diphenyl phthalate
Diocetyl phthalate
Diisooctyl phthalate
Di-n-octyl-n-decyl
phthalate
Diisodecyl phthalate
Santicizer* 100
Santicizer 213
Santicizer 214
Santicizer 602
Santicizer 603
Santicizer 606
Santicizer 611
Santicizer 613

Adipates

Diisodecyl adipate
Diocetyl adipate

Phosphates

Tricresyl phosphate
Triphenyl phosphate
Santicizer 140
Santicizer 141

Phthalyl Glycolates

Santicizer E-15
Santicizer B-16
Santicizer M-17

Sulfonamides

Santicizer 1-H
Santicizer 3
Santicizer 8
Santicizer 9

Sulfonamide Resins

Santolite* MHP
Santolite MS-80%

*Reg. U. S. Pat. Off.

Specialties

HB-40*
HB-20*
Santowax* R
Aroclor* 1221
Aroclor 1232
Aroclor 1242
Aroclor 1248
Aroclor 1254
Aroclor 1260
Aroclor 1262
Aroclor 1268
Aroclor 2565
Aroclor 4465
Aroclor 5442
Aroclor 5460

Building a "new" formulation, re-evaluating an "old" formulation?

... Fill out the "Plasticizers Council" card (below) and send it to Monsanto. Your inquiry will receive immediate attention from Monsanto Research and Technical Service teams.

MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, Dept. PL-4, Box 478,
St. Louis 1, Missouri



Please fill in all information that applies to your operation

Base resin now using (including brand name) _____

Fabrication method:

Extrusion _____

Injection Molding _____

Plastisol _____

Adhesive _____

Calendering _____

Fabric Coating _____

Surface Coating _____

Other (please indicate) _____

Brief description of end-product and production method

Important end-product properties

Specific gravity _____

Tensile strength _____

Elongation _____

Volatility, % weight _____

% plas. _____

Low temp. flex and method _____

Light stability _____ hrs. Weatherometer

_____ hrs. Fadeometer

Special properties _____

Raw material cost _____ / lb.

Shore hardness _____

100% modulus _____

Heat stability _____ minutes

at _____ °C.

General notes _____

I would like to have more information on reducing costs through purchasing plasticizers in bulk or combined shipments. I currently purchase the following plasticizers: _____

NAME _____ TITLE _____

FIRM _____

ADDRESS _____

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TOWOLDMON0034453

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