

New Products and Equipment . . .

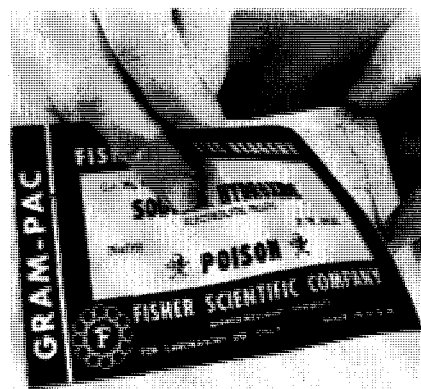
Sleeve Valve for Multiwall Bags

A newly designed inner sleeve valve for multiwall paper fertilizer bags is being introduced by Bemis Bros. Bag Co. Bemis says the "Mr. Little" sleeve valve, named for its inventor, offers cleaner, quicker, more positive closures than any other inner sleeve valve now offered commercially.

This valve functions in much the same manner as a check valve in a water pipe, which permits the water to flow freely in one direction but not in the other. The sleeve design permits a firmer, more secure closure than other inner sleeves. It practically eliminates leakage and gives maximum sifting protection.

The valve's fast action on the packing spout keeps the product out of the valve pocket, which reduces the chance of moisture getting into the bag through the "wick" action of hygroscopic products. **PE1**

Gram-Pac, Prepackaged Reagent Chemicals



Fisher Scientific Co. will soon be marketing laboratory reagents in this envelope package containing 10 or 25 grams of reagent chemicals. The laminated packages are expected to eliminate the traditional, and relatively expensive, 1/4-pound glass bottle for individual laboratories. Laboratories needing small amounts of reagent chemicals have, previously, purchased the quarter pound bottle. Fisher plans to market most of its high purity Fisher certified reagents in the Gram-Pac packages; liquids and hygroscopic materials will also be available **PE2**

Combination Insecticide-Fungicide for Rose Gardeners

A combination insecticide-fungicide that can be sprayed or dusted on roses to control insects and fungus diseases will

be available for rose growers and gardeners for the 1955 gardening season. Called Du Pont Rose Insecticide and Fungicide, it succeeds the familiar Du Pont Rose Dust based on the famous "Massey formula" for control of black spot and other rose diseases.

The material contains a combination of three insecticides in a low toxicity mixture, plus the Massey formula of sulfur and "Fermate" ferbam fungicide. The insecticides include methoxychlor which gives residual control of most common insects, lindane for aphid control and quick insect knock-down, and "Aramite" miticide for specific control of red spider mites. Although prepared especially for the rose grower, it can also be used on most other flowers and ornamentals.

The insecticide-fungicide formulation will be available in an 8-ounce dust gun, a 1-pound canister, and a 3-pound weather-resistant bag. **PE3**

Carbon¹⁴ Labeled Aniline

Aniline, C¹⁴, an important organic intermediate, has been added to the list of labeled aromatic compounds which

are available from the Nuclear Instrument and Chemical Corp. This compound joins benzene, toluene, benzaldehyde, and benzoic acid which are presently listed.

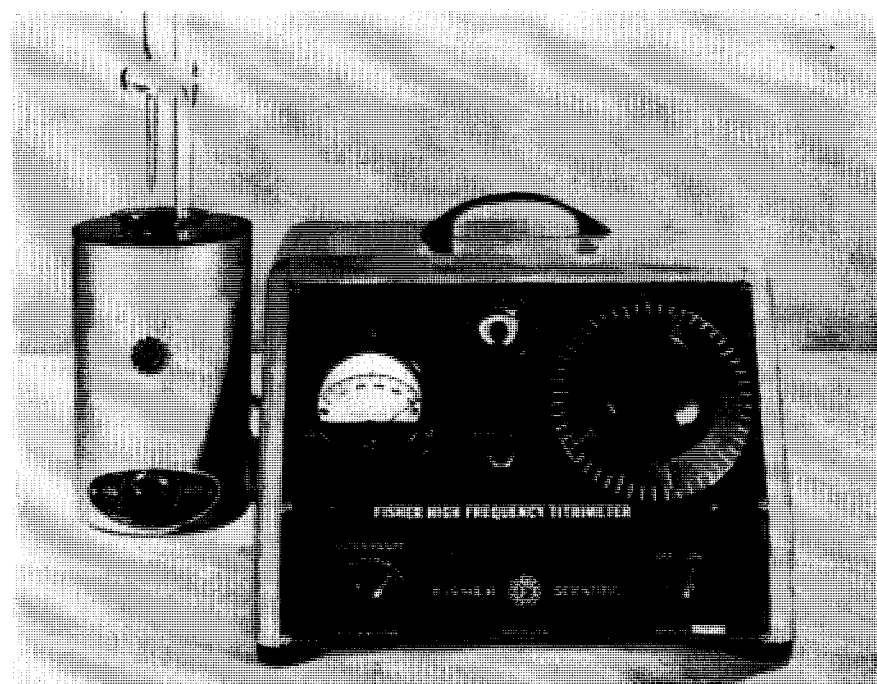
The aniline will be especially useful to workers studying the mechanisms of certain organic reactions, solvent partition, and in tracing various industrial processes. It is available at one millicurie per millimole in three package sizes (1, 0.5, and 0.1 millicurie) under AEC licensing procedures. **PE4**

"TENOX VI" Combination of BHA and BHT

In 1954 the USDA amended the existing regulations on the use of antioxidants in animal fats: Total amount of any one phenolic antioxidant which could be used in an animal fat was reduced from 0.02 to 0.01%. The Department, however, did allow a total of 0.02% of all antioxidants and, since that time, processors have experimented with various combinations in an effort to reduce the amount of antioxidant

High Frequency Titrimeter

High frequency titrimeter available from Fisher Scientific allows analyst to follow titration either through changes in conductance or change in capacitance. The device can be used to follow titrations in organic solvents or mixtures of solvents. Some reactions fail to give a significant change in potential which can be followed by ordinary potentiometric techniques. With the new titrimeter there are no electrodes in the solution, eliminating polarization and electrolysis, problems occurring in potentiometric techniques. The instrument is designed to operate on standard alternating current **PE5**



which they had been using in fats and oils, yet retain effective stability.

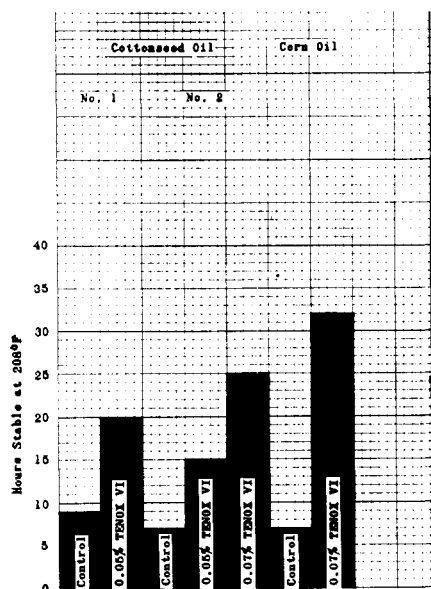
Eastman Chemical Products researchers have tested more than a dozen combinations of BHA and BHT in terms of AOM stability, Shaal Oven life, and end use areas, including pilot production runs. Eastman believes that it now has, in its new product TENOX VI, the best formulation of BHA and BHT available for use by processors of lard, shortening, and similar food-grade products.

The new antioxidant is a mixture containing 10% TENOX BHA, 10% TENOX BHT, 6% TENOX propyl gallate, and 6% citric acid. This mixture, TENOX VI, is dissolved in an oil soluble combination of propylene glycol, glyceryl mono-oleate, and corn oil.

TENOX VI brings to the user the unique synergistic properties of BHA in combination with BHT. It is, therefore, able to offer protective properties much greater than one would expect from the simple addition of the two antioxidants. TENOX VI is, in fact, the most advantageous way of making effective use of the antioxidant characteristics of BHA and BHT in combination.

The effectiveness of TENOX VI in various concentrations in vegetable oils and products may be seen in the graph below.

PE6



Effect of TENOX VI on vegetable oils

Pneumatic Vacuum Pan Controller with Supersaturation Indicator

A pneumatic vacuum pan supersaturation controller available from Fischer & Porter permits operation at full evaporating pan capacity and avoids formation of false grains in cane sugar strikes with apparent purities of 60 to 100%. A thermal element and an absolute pressure indicating controller are combined in one instrument to provide

accurate determination of the optimum instant for seeding of grain strikes by observing the intersection of the masse-cuite temperature and vapor temperature indicating pointers.

In operation empirical data are used to select lines of supersaturation on an indicator chart between 1.00 and 1.40 with the operating zone between 1.25 and 1.40 colored green for convenience. The "danger" zone below 1.40 may be colored red or a contrasting color. Maintaining the intersection of the pointers in the green zone by manually setting the absolute pressure control point assures pan operation in the metastable zone within which optimum crystallization occurs.

Computations are unnecessary and production of uniformly high quality sugar is accomplished under controlled conditions with this single instrument.

PE7

Alkyl Aminoalkyl Chlorides

γ -Dimethylaminopropyl chloride hydrochloride, the latest addition to Michigan Chemical's list of alkyl aminoalkyl chlorides, is commercially available for the first time in this country.

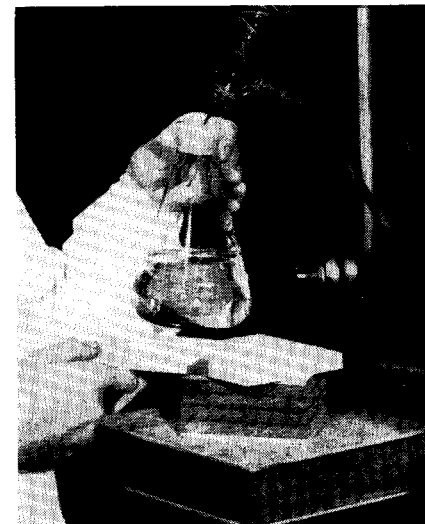
The relatively nontoxic compound is of interest principally to the pharmaceutical industry as an intermediate. Its versatility is demonstrated by its ability to react with amines to form γ -aminopropyl amines, with alcohol derivatives to form γ -aminopropyl ethers, and with acid derivatives to form γ -aminopropyl esters, all of which are compounds of therapeutic interest.

In these compounds the physiologically active amino, ether, or ester groups are

separated by a three-carbon chain, rather than the usual two-carbon chain. This fundamental difference in side-chain composition is expected to provide interesting variations in the pharmacological effects of resulting end products.

PE8

Lab Blocks Support Research Setups



Cenco Lab Blocks, made of Transite and insulation, are heat and chemical resistant and are useful for supporting light or heavy pieces of laboratory equipment such as beakers, flasks, hot plates, or ring stands. The Lab Blocks are uniformly shaped in 4- and 8-inch squares and come in thicknesses ranging from $\frac{1}{4}$ inch to 2 inches. A set of the blocks enables the laboratory worker to select a wide variety of positions from $\frac{1}{4}$ to $7\frac{3}{4}$ inches

PE9

Use...

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