I

A. Intermediates and Chemicals

BIOS LABS OFFERING FINE NEW CHEMICALS

Source: Oil, Paint and Drug Reporter - 10-27-52, Page 60

Bios Laboratories, Inc., New York, is offering five new chemicals -- parabanic acid, phrenosine, 2-iodothiophene, luminol and thioformamine.

Parabanic acid is reportedly soluble in alcohol, sparingly soluble in water, and is said to undergo reduction, alkylation and condensation reactions. Phrenosine, described as yellowish-white crystalline powder, is said to yield D-galactose, sphingosine and phrensinc acid on hydrolysis. 2-iodothiophene is reportedly the starting point for the synthesis of many thiophene derivatives such as dyes, indicators and pharmaceuticals. Luminol is used as an analytical reagent, as an indicator in plant and animal biochemistry, and as a moisture indicator. Thioformamine is used in preparation of thiazole and thiazoline, and is the starting point of many pharmaceuticals.

ORGANIC INTERMEDIATES, NEW DYESTUFFS AGENCY, FORMED

Source: Oil, Paint and Drug Reporter - 10-20-52, Page 55

A new company, Organic Intermediates, has been formed to serve as a clearing house for the sale of dyestuff intermediates manufactured by the smaller dyestuff concerns and to act as a sales agent for chlorophyll and derivaties manufactured by the Chlorophyll Corporation of America. Offices of the new company are at 120 Central Avenue, Clark Township, New Jersey.

Dyestuff products offered by the new company represent the output of about thirty manufacturers, with some of the materials on the market for the first time. A list of the intermediates is available on request to the company.

TERT-BUTYLAMINE

Source: Chemical Week - 10-4-52, Page 32

Rohm and Haas Company is now offering the first development quantities of tert-butylamine. It's the latest and lowest molecular weight member of the company's series of tert-alkyl amines. A clear, colorless to amber liquid which boils at 44 c to 50 c, the new amine undergoes alkylation, cyanomethylation, cyanethylation, oxidation and a number of other reactions typical of its family.

Suggested uses are in the preparation of vulcanization accelerators, oil and grease additives, insecticides, surface-active agents, antimalarials and corrosion inhibitors. It is also useful as a catalyst in certain reactions.

REILLY TAR'S PYRIDIN PLANT REPORTED NEAR COMPLETION

Source: Oil, Paint and Drug Reporter - 10-13-52, Page 5

Reilly Tar and Chemical Corp. has announced that its new synthetic pyridin plant in Indianapolis, Indiana is rapidly nearing completion and is expected to go on stream early in 1953.

I

B. Dyes and Pigments

LONG CHAIN, ALKYL SUBSTITUTED DYES IMPART WATER REPELLENCY

Source: Chemical & Engineering News - 10-6-52

A laboratory accident at Michigan State College has led to the discovery that certain types of dyes will import to textiles water repellency as well as color. In a report before the 17th Unit Process Symposium, C. C. De Witt and P. L. Shroff told how a long chain, alkyl substituted dye which had been prepared for some work in mineral flotation was spilled and wiped up with a white cloth. The cloth was later found to be not only colored but also water repellent.

A detailed study of this and related dyes followed. The basic dyes used on wool included: octyl malachite green hydrochloride, octyl rosaniline hydrochloride, malachite green hydrochloride, and parasaniline hydrochloride. The dye bath is made up using acetic acid, boiling water, and a small amount of sodium sulfate. To fix the basic dyes on cotton, tannic acid was used. Work on azoic dyestuffs such as nonyl and undecyl azo-N also revealed the water repellency property.

GENERAL DYESTUFF OFFERS COLORS DATA

Source: Oil, Paint and Drug Reporter -11-10-52, Page 55

General Dyestuff Corp. has published a brochure describing the properties and uses of its line of "Heliogen" colors. The booklet gives full information on the powder brands, paste and presscake brands, water-dispersible powder brands and water dispersible paste brands of "Heliogen" colors. A free copy of "Heliogen Colors" may be obtained from General Dyestuff Corporation, 435 Hudson Street, New York 14, N. Y.

ARIGEN PASTES FOR FAST-COLOR PRINTING

Source: American Dyestuff Reporter - 10-13-52, Page 691

Arigen Pastes, stabilized azoic dyes emulsion form, have been introduced by Interchemical Corp., for the fast-color printing of cotton, spun rayon and other fabrics.

Although Arigen Pastes were developed specifically for use in printing by Interchemical's exclusive Aquadye Emulsion system, they are said to be equally suitable for use in conjunction with conventional gum thickness.

Among the advantages cited for Arigen Pastes when applied by the Aquadye emulsion system are sharper marks, smoother blotches, better hand, and greater ease of application. Because no starches or gums are present in the emulsion, this system is claimed to be particularly valuable for printing flannels, suedes and sheers. Arigen Pastes are also recommended for printing draperies, upholstery fabrics, tablecloths, handkerchief, dress goods and other materials.

Arigen Pastes reportedly approximate one-fifth the strength of the corresponding arigen powders. They produce prints of the same depth, shade, and fastness properties as are obtained with the corresponding Arigen Single Solutions, it is stated.

SOLUBLE VAT DYES

Source: American Dyestuff Reporter - 10-13-52, Page 687

The Anold, Hoffman and Company, Inc. has begun the production of soluble vat dyes at its plant at Dighton, Mass. The dyes will be sold under the general name of "Ahcovat Soluble" dyes. Currently in production at the Dighton Plant are the following colors:

Ahcovat Soluble Green IB
Ahcovat Soluble Olive Green IBL
Ahcovat Soluble Pink IR
Ahcovat Soluble Indigo O
Ahcovat Soluble Golden Yellow IGK
Ahcovat Soluble Golden Yellow IRK
Ahcovat Soluble Blue IBC

DYESTUFF PRODUCTION- JAPAN

Source: Manufacturing Chemist - August 1952, Page 351

Production of dyestuffs during the year ending March 31, 1952 was 14,720 metric tons, an increase of 2,300 tons over the previous year. Exports were only 899 tons, and present unsold stocks in Japan are estimated at 2,200 tons, of which about 1,000 tons are sulfite dyes.

TENNESSEE OFFERS NEW ACETATE DYE

Source: Journal of Commerce - 10-15-52

A new, bright red acetate dye, Eastone Brilliant Fast Red 2B-GLF, will be offered to acetate textile finishes by Tennessee Eastman Company within the next few weeks. The dye is claimed to possess a combination of fastness properties and dyeing characteristics unequaled by any acetate red dye now on the market.

H. L. Ford, assistant vice-president of the company, stated that tests in the development laboratories and evaluations in the field failed to disclose a single weak spot in the over-all characteristics of this new red dye.

"An analysis of the properties of Eastone Brilliant Fast Red 2B-GLF", he reported, "shows its resistance to atmospheric gas and light fading to be equal to or better than any other acetate red or pink available."

REVOLUTIONARY PROCESS SPEEDS DYEING OF CLOTH

Source: Journal of Commerce - 10-10-52

What its inventors claim to be the most revolutionary and efficient dyeing and scouring machine ever invented was unveiled this week in Philadelphia at the Hussong-Walker-Davis Company plant, wet process dyeing machine manufacturers, and producers of the new equipment.

If this new machine lives up to the claims of its inventors, it will indeed be revolutionary and one more long step will be taken in the direction of lower manufacturing costs for textiles.

REVOLUTIONARY PROCESS SPEEDS DYEING OF CLOTH (cont'd)

It was created by Boyce C. Bond, sales manager of the fine chemicals division of Pittsburgh Coke and Chemical Co., and is called the Bond machine.

According to Mr. Bond, the new device will be able to run from 20 to 120 yards of cloth through per minute, depending on the type of construction and the kind of dyestuff employed. It is planned for everything from elastic tapes to 18-foot carpets.

Features of the new Bond machine are its unusual versatility in the types of dyestuffs used, flexibility of short runs, better and speedier diffusion of dye solution throughout the fabric and economy of floor space, says its inventor.

A control panel allows an operator to operate it completely automatically, from speed, tension and temperature through to the thickness of the fabric being dyed. It is so versatile, he said, it can be used to apply a fix solution to only one side of a carpet. It can be used for finishing fabric or for application of waterproofing or mothproofing compounds.

Explanation of the exceptional uniformity and speed in dyeing, it was explained, lies in two metal plates through which the fabric passes in the process. The plates are perforated in a precisely calculated pattern which enables the dye solution to be squirted under pressure evenly on both the face and back of the fabric. The many streams form to make an almost continuous sheet of solution which meets the fabric, with equal pressure on each side. The dye liquor is thus forced instantaneously throughout every fiber.

Mr. Bond said the secret of his machine is that the process is a liquid pressure process and not mechanical. It operates with an unusually low volume of dye solution, resulting in considerable savings. Fabrics dyed on the pilot model include cotton, wool, rayon, nylon, orlon, dacron, and blends. On the latter, the results are as uniform as on a 100 per cent fabric.

Pile fabrics, such as velvet, plush, corduroy, carpeting have also been dyes with a minimum of crush or pile distortion. A simple adjustment in the width of space between the plates adapts the machine for the type of fabric.

The Bond machine can apply all the various classes of dyestuff, including vat, direct, acid, sulphur, acetate and naphthol. Colors can be mixed in the machine without regard to exhaust or affinity rating with uniform results. Even cold dyeing vat colors have been mixed with hot dyeing vat colors successfully.

Sounds like a pretty good machine but the model has not yet been tested commercially. We must wait a while before its qualities have been confirmed.

NEW REINFORCING PIGMENT IS OFFERED BY HUBER

Source: Journal of Commerce - 10-17-52

Commercial quantities of Zeolex 20, a new white reinforcing pigment, are now available from J. M. Huber Corp.'s chemical division plant at Havre De Grace, Maryland.

Zeolex 20, a calcium zeolite, has wide reinforcing applications in rubber and plastic stocks. It can also be used as a salt conditioner and a carrier of high concentrate pesticides. Its applications in a variety of other industries are also under study.

RUTILE EXPANSION GOAL FIXED AT 25,000 TONS

Source: Oil, Paint and Drug Reporter - 10-6-52, Page 3

The Defense Production Administration last week set a goal for U. S. supply of rutile from both domestic and foreign sources at 25,000 tons per year, to be achieved during 1954. This provides about 6,000 tons new capacity over that existing in 1951.

About two-thirds of the current U. S. supply of rutile is imported from Australia. One-third is domestic. DPA stated that while rutile is not now in short supply, its use has been increasing, and because of its defense-connected uses, a larger supply is considered desirable. DPA said it is expected Florida will be the principal source of domestic rutile expansion, and beneficiation plants are planned for extraction of the mineral from the sand in that state.

PIGMENT FOR EXTRUSION COMPOUNDS

Source: Modern Plastics - October 1952, Page 208

Natural color vinyl compounds can be colored for around 1¢ per pound with R-B-H pigments, as compared with the usual premium of 5¢ or 6¢ for pre-colored compounds, according to R-B-H Dispersions, Div. Interchemical Corp.

Company literature states that vinyl dry blend compound can be efficiently and uniformly colored by the new R-B-H plastic powders, which are pulverized masterbatch dispersions of pigments in R-B-H Resin 510. Resin 510 is a thermo-plastic, friable, hydrocarbon resins with good dielectric properties; it is completely compatable with vinyl, as well as other thermoplastics, including polyethylene, polystyrene, cellulose acetate, and ethyl cellulose.

I
C. Pharmaceuticals

SULFATHIAZOLE PRODUCTS NOW BARRED IN PERU

Source: Oil, Paint and Drug Reporter - 10-20-52, Page 65

The Peruvian Government has barred the importation and manufacture of sulfathiazole tablets, injectable solutions and other preparations containing single or compound sulfathiazole under a decree issued last May, according to information received by the Department of Commerce.

The American Embassy at Lima reported that officials of the Inspectorate General of Pharmacy said that the use of sulfathiazole tablets and injections is no longer considered necessary and, to the contrary, can be replaced advantageously by other products with less toxic effects.

ANTIMALARIAL

Source: Drug Trade News - 8-4-52, Page 59

Burroughs Wellcome and Company, Tuckahoe, N. Y., will market "Daraprim", a new antimalarial in use in England. British investigators reported that products cleared 30 of 32 patients with falciparum and quartan malaria within 72 to 96 hours after administration.

VITAMINS-POULTRY GROWTH

Source: Chemical Week -8-30-52, Page 40
CPYRGHT Drug Trade News - 8-18-52, Page 42

USDA scientists report discovery of a possible new vitamin that promotes growth in chicks. The new factor is found in fish solubles, fish meal and meat meal. These animal by-products have been recommended for use in feeds for growing chickens even though, in recent years, it has been possible to supply all the known nutrients without them.

TB DRUG SEEN HELPFUL IN LEPROSY TREATMENT

CPYRGHT
Source: Journal of Commerce - 10-23-52

An official of a Japanese leper sanatorium has reported favorable results in the treatment of leprosy with the new anti-tuberculosis drug, isonicotinic acid hydrazide.

Professor Kazuo Saikawa said tests were made on 14 patients since last March. Five of them have recovered completely and the disease has been stopped in the others, he asserted.

The germ of leprosy in some respects resembles that of tuberculosis. Other TB medicines have been tried against leprosy with varying results.

ISONICOTINYL HYDRAZIDE

CPYRGHT Chemical Week - 10-11-52, Page 10

A report by Britain's Medical Research Council will crimp use of isonicotinyl hydrazide, the new TB drug, in British hospitals. Reason: too much chance of developing drug-resistant strains of TB bacilli.

Such strains were found in 11% of the treated patients after the first month; 52% after the second, 71% after the third month.

THREE EXPERIMENTAL ANTIBIOTICS

CPYRGHT Chemical Week - 10-11-52, Page 32

Three experimental antibiotics are research news from Sharp and Dohme, Inc. They have been dubbed Cardicin, rhodocidin and thioaurin. All possess highly desirable attributes, but therapeutic value in each case is yet to be determined.

Cardicin inhibits several yeasts, molds, bacteriophages and gram-positive bacteria. It has also shown some activity against influenza virus. Toxicity, however, threatens its usefulness.

Rhodocidin, isolated from an unidentified species of actinomyces, is effective against widely differing types of bacteria. Its activity is apparently undiminished by serum.

Thioaurin boasts broad-spectrum activity, is relatively non-toxic in the bargain.

CALL FOR CAREFUL DRUG TEAM USE

Source: Journal of Commerce - 10-22-52

Two San Francisco researchers report that promiscuous use of antibiotic combinations may result in one of the drugs deterring the effect of the other on a disease causing organism.

They stated that antibiotic teams should only be used if an organism proves resistant to a single antibiotic as shown by laboratory tests or adequate therapeutic trials.

Dr. E. Jawetz and J. B. Gunnison, M.A. divided antibiotics into two groups: (1) penicillin, streptomycin, bacitracin and neomycin, and (2) aureomycin, chloramphenicol, terramycin and possibly, sulfonamides. They said that a combination of drugs within either group willnot antagonize each other and that simple additive effects from their multiple use are often observed. However, the combination of a drug in one group with one of the other group may interfere with the effectiveness of the drugs.

MAGNAMYCIN, A NEW DRUG TO BATTLE BACTERIA

Source: Wall Street Journal - 10-13-52

A new antibiotic, Magnamycin, which the company says may prove effective against bacteria which are immune to such antibiotics as penicillin and streptomycin, has been discovered by Chas. Pfizer & Co., Inc.

The new drug is now undergoing extensive clinical tests, according to a Pfizer spokesman. Early reports indicate that these tests will confirm test-tube results showing that bacteria which can live in the presence of older antibiotics, cannot survive attack by this latest drug.

In other tests on animals, Magnamycin was found to destroy bacteria, such as the pneumonia germ and streptococci. Laboratory animals such as mice and rats have been given large doses of the new antibiotic without harm to their tissues, the company said. These doses were given by injection into veins, muscles and the skin.

I

D. Plastics, Resins, and Rubber

EPOXY RESINS

Source: New Products Development Department - October 1952

The Minnesota Mining and Manufacturing Company is greatly impressed by the adhesion qualities of epoxy resins and would like to obtain epoxy compounds suitable for resin preparation.

RUBBER CONSUMPTION - SEPTEMBER

Source: The Rubber Manufacturers Association - 10-30-52

New rubber consumption during the month of September increase 13.72% to 106,533 long tons from the 93,676 long tons consumed in August, according to the monthly report of the Rubber Manufacturers Association, Inc.

Consumption of natural rubber during September increased 21.27% to 39,629 long tons from the 32,678 long tons used during August. Use of snythetic rubber amounted to 66,904 long tons, an increase of 9.68% from the previous months' total of 60,998 long tons.

Consumption of reclaimed rubber by the industry was estimated at 23,459 long tons, 14.73% above the 20,447 long tons used during August.

 VULKOLLANS - NEW RUBBER

Source: Chemical & Engineering News - 10-27-52, Page 4457

Latest to complete with natural rubber are the so-called Vulkollans. Originally developed by O. Bayer (Germany), these elastic materials are made by reacting ethylene glycol and adipic acid to yield a polyester which in turn is treated with a diisocyanate to form a sirupy mass. Material is then treated with water or ethylene glycol. Water treatment liberates carbon dioxide yielding a foam sponge rubber; glycol yields a solid product. Similar products have been studied by American companies (Du Pont-ICI's Vulcaprene and Bell Telephone's Paracron). Advantages: high elasticity and tensile strength, good abrasion resistance and structural strength, resistance to ozone and oils. Drawbacks: affected by concentrated acid, alkalies, and prolonged exposure to steam and hot water, and unsatisfactory properties below 20°C. and above 130°C. Vulkollans are workable only during a limited period and lack adhesive properties unless modified. Present use: rubber heels with eight to ten times the wear of natural rubber. Potential uses: insoles, cable covers and fabric coatings.

NEW ROSIN TYPE RUBBER DEVELOPED

Journal of Commerce - 10-30-52

Greater tire wear -- longer, in fact, than the rubber industry thought possible a few years ago -- is a distinct probability in the near future if a new type of GR-S synthetic rubber, now in the pilot plant stage, becomes a production reality.

The new rubber was developed by scientists of the Naugatuck Chemical Division, U. S. Rubber Company.

Laboratory tests show that the new synthetic gives 30 to 50 per cent more abrasion resistance than standard "cold" rubber. It also has good resistance to heat, cracking caused by rapid flexing, and the deteriorating effects of aging in air.

The new rubber is made possible by the addition of rosin chemicals, by-products of turpentine manufacture, to an extra tough "cold" type of GR-S synthetic rubber.

NEW ROSIN TYPE RUBBER DEVELOPED (cont'd)

The rosin chemicals make the rubber easier to fabricate into products and improve its end product of qualities.

The chemicals are added to the rubber when it is in the latex or liquid form. Carbon black may be added at the same time.

I

E. Miscellaneous

SURFACE PRINTING INKS

Source: Modern Plastics - October 1952, Page 210

Solvent System surface printing inks based on polyvinyl chloride resin for wallpaper printing machines are being offered by Claremont Pigment Dispersion Corp., 110 Wallabout Street, Brooklyn, New York. The inks dry thoroughly at temperatures of 125°F. in from five to ten minutes, and have no after-tack or pick-off. A complete range of non-crocking, non-bleeding, light-fast colors are available.

II

New Products and Types Approved for Manufacture

Date	Code	
10-28-52	71002-23	Calcogene Black 5GCF Solution
10-28-52	71016-09	Calcogene Black RBCF Conc. Solution
10-28-52	71016-10	Calcogene Black RBCF Solution

III

Publications Committee Approvals

1. "Textile Resins in 1952" by K. H. Barnard. For oral presentation before the Ontario Section of the Canadian Textile Chemists' Assocation at Hamilton, Ontario on October 3.

2. "Piperazines. I. Derivatives of Piperazine-1-carboxylic and -1,4-dicarboxylic Acid" by H. W. Stewart, N. Q. Quinones, E. G. Lee and J. J. Denton for publication in Journal of Organic Chemistry.

3. "Piperazines. II. 1-Heterocyclic Piperazines and 1-Heterocyalic-4-carbethoxy-piperazines" by K. L. Howard, H. W. Stewart, E. A. Conroy and J. J. Denton for publication in Journal of Organic Chemistry.

4. "Piperazines. III. 1-Heterocyclic-4-guanyl, carbanyl, and thio-carbancyl-piperazines" by E. A. Conroy and J. J. Denton for publication in Journal of Organic Chemistry.

5. "Chemistry of Azo Dyes" by N. M. Mackenzie. Lecture to be presented as part of American Chemical Society Lecture Series on October 21, 1952 at Summit, N. J.

6. "Studies in Textile Printing" by R. D. Greene and F. Fordemwalt. for presentation before the fall meeting of the Providence Section of A.A.T.C.C. and for publication in the American Dyestuff Reporter.

7. "Textile Resins in 1952" by K. H. Barnard. A speech to be made on October 3 at Hamilton, Ontario before the Ontario Section of the Canadian Textile Chemists' Association.

8. "Two-Sidedness" by F. O. Sundstrom. A paper which will be presented to a number of closed meeting between Calco and mill personnel.