ACRYLO-NEWS

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AERO* Acrylonitrile, a highly stable bi-functional chemical, is finding increasing use as a reactive intermediate. Its versatility is indicated by its use in the preparation of pharmaceuticals, insecticides, surface active agents, and many other useful products as well as by direct application in the broad fields of rubber, plastics and textiles. Its polymers and copolymers can be formulated to add many desirable properties to today's products and to create interesting new products for the future. The following items and abstracts, gathered from many sources, indicate a few facets of current research with this versatile chemical.

FABRICS THAT BREATHE, THOUGH IMPERMEABLE TO FLUID, are ideal for apparel, tarpaulins, awnings, etc. This may be achieved by impregnating a glass fiber web with a water-soluble compound, completely filling the voids, after which a continuous coating of an acrylonitrile-butadiene thermoplastic resin is applied. The filler is then removed by water leaving a microporous material.

CELLULOSE REACTS WITH ACRYLONITRILE to form a new group of fibrous and non-fibrous ethers. For example, if cotton is chemically modified with relatively low percentages of acrylonitrile, it acquires such desirable properties as rot proofness, heat resistance and better receptivity to dyes. By introducing larger amounts of acrylonitrile, soluble ethers are formed which are useful intermediates for textile finishes, sizes, emulsifiers and many other processing agents.

APPLICATION OF ACRYLONITRILE COPOLYMERS TO SYNTHETIC FIBERS has been improved through admixture with phenolic resins. Smooth, hard, glossy, flexible coatings, having good adhesion to nylon fibers, may be obtained by combining acrylonitrile-styrene copolymers with alkyl-substituted phenolic resins and a catalyst.

ACRYLONITRILE RUBBERS CONTINUE TO FIND NEW USES. Since the new types of plastic floor coverings are not effectively bonded with water-containing adhesives such as casein and animal glues, an intermediate coating is required. Application of acrylonitrile-butadiene copolymer to the under surface of the floor covering provides excellent bonding with these common types of adhesives.

METHYLENEBISACRYLAMIDE, ANOTHER MEMBER OF THE GROWING ACRYLONITRILE FAMILY, is of value as a cross-linking agent. It can be used to link unsaturated alkyd resins to give products with improved thermostability and solvent resistance. In general, methylenebisacrylamide may serve as a bridging agent for compounds containing active hydrogen atoms. Potential applications exist in molding resins, adhesives and coating compounds.

Should you wish a more complete bibliography of current literature and new developments concerning acrylonitrile, we shall be glad to place your name on our mailing list.

As the pioneer producer of this exciting vinyl monomer, American Cyanamid has expanded its production facilities to assure users adequate supplies at low price. Write for technical assistance in your acrylonitrile research.

*Trade-mark