

## IR - Sadtler Fibers & Textile Chemicals - Wiley

Spectra - 485

### Description

This IR spectral database contains 485 infrared spectra of natural and synthetic fibers from domestic and foreign sources. It can be used as a reference in the identification, verification, and classification of unknown compounds.

Among the natural fibers represented are: silk, wool, cotton, kapok, flax, jute, hemp, sisal, raffia and asbestos. Synthetic fibers include all generic classifications defined in the Textile Fiber Products Identification Act, with the exception of the "Metallic" class. Typical of the classes represented are acetate, acrylic, nylon, nylril, polyester, rayon, triacetate, vinyl, and vinylon. Textile chemicals include defoamers, detergents, bleaches, antistats, conditioners, finishers, softeners, and other agents.

### Additional Information

Each record is identified by name/trade name of the product, source of the sample, method of sample preparation and includes the following (when available): chemical description, physical data and processing function of the product (as defined by the manufacturer), chemical composition, chemical and physical properties.

### Classifications

#### FIBERS-NATURAL FIBERS - 23

Animal - 5  
Bast - 10  
Leaf - 4  
Mineral - 1  
Miscellaneous - 3

#### MAN-MADE FIBERS - 215

Acetate - 16  
Acrylic - 12  
Azlon - 2  
Glass, Ceramic - 6  
Modacrylic - 4  
Nylon - 66  
Nylril - 2  
Olefin - 28  
Polyester - 49  
Rayon - 7  
Rubber - 2

Saran - 6  
Spandex - 3  
Triacetate - 2  
Vinal - 1  
Vinyon - 8  
Unclassified - 3

#### TEXTILE CHEMICALS - 381

Amines - 42  
Antistats - 15  
Bleaches - 2  
Bonding Agents - 2  
Brighteners - 5  
Carriers - 4  
Chelating Agents - 3  
Cross-Linking Agents - 10  
Defoamers - 2  
Detergents - 19  
Dyeing Assistants - 24

Esters - 22  
Germicides - 2  
Inhibitors - 2  
Leveling Agents - 3  
Lubricants - 21  
Polyoxyethylenes - 4  
Processing Materials - 47  
Resins - 20  
Retardants - 4  
Scouring Agents - 28  
Sizing Agents - 7  
Softeners - 29  
Solvents - 8  
Styrenes - 4  
Sulfonates - 12  
Thickeners - 1  
Vinyls - 27  
Waterproofers - 6  
Wetting Agents

### Technique

In order to provide additional information, a number of samples were pyrolyzed by Harms method and spectra prepared from the pyrolyzates. Also, prior to IR analysis, some samples were oven dried (105°C) or vacuum dried to ensure complete removal of water. Products found to be immiscible with chloroform were air dried before transference to the vacuum oven. In order to remove salts, which would mask the absorption characteristics of the active ingredients, a few products were extracted with ethanol. In such cases, the extraction procedure is noted. In those cases where the sample was examined as a film, the solvent used to cast the film is also noted.

*This collection has been subject to the Sadtler Data Review Protocol™ to provide you with the highest standard in spectral data today. These rigorous qualifying procedures start at data acquisition and continue throughout the database development process.*