



SADTLER RESEARCH LABORATORIES

Division of Bio-Rad Laboratories, Inc.

MONOMERS AND POLYMERS

Volume 27

D7801K - D8100K

Creative Chemists Since 1874

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On the other hand every effort is made by Sadtler Research Laboratories, a division of Bio-Rad Laboratories, Inc. to assure the reliability of the published spectra. When improved data is available or errors are called to our attention we revise and reissue the proper replacement spectra.

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SADTLER COMMERCIAL INFRARED GRATING SPECTRA
MONOMERS AND POLYMERS
INTRODUCTION TO VOLUME 27

This publication of 300 infrared absorption spectra, numbered 7801 K through 8100 K supplements the comprehensive collection of 7800 spectra of commercially available monomers, polymers and additives previously prepared and published by Sadtler Research Laboratories. The types of materials included in the entire collection represent products manufactured throughout the world in the area of plastics and a wide variety of additives. A precise listing of the chemical categories shown in the collection can be found in the introduction to the cumulative indexes which accompany this publication.

The spectra in this supplement were prepared on a Digilab FTS-14 Fourier transform spectrophotometer in the spectral region 4000 cm^{-1} to 400 cm^{-1} and are presented on a linear transmittance vs. frequency (wavenumber) format. Spectra previously published in this collection were prepared on a Perkin-Elmer 621 instrument or, in the special case of Volumes 15, 16 and 18, a prism spectrophotometer. Each individual spectrum published carries the name of the instrument used for its preparation.

Each spectrogram is also labelled with the trade name of the material, the chemical description and physical data supplied by the manufacturer, the source of the sample used in preparing the spectrogram and the method of sample preparation used for the scan.

The cumulative indexes accompanying this publication consist of an alphabetical index of the products by trade name, and chemical name where applicable, and a chemical classification index by type. A detailed description of the indexes is given in the introduction to that section.

We gratefully acknowledge the continued cooperation of manufacturers throughout the world in supplying the product samples used in preparation of this spectra collection.



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POLY(VINYL ALCOHOL)

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75% Hydrolyzed

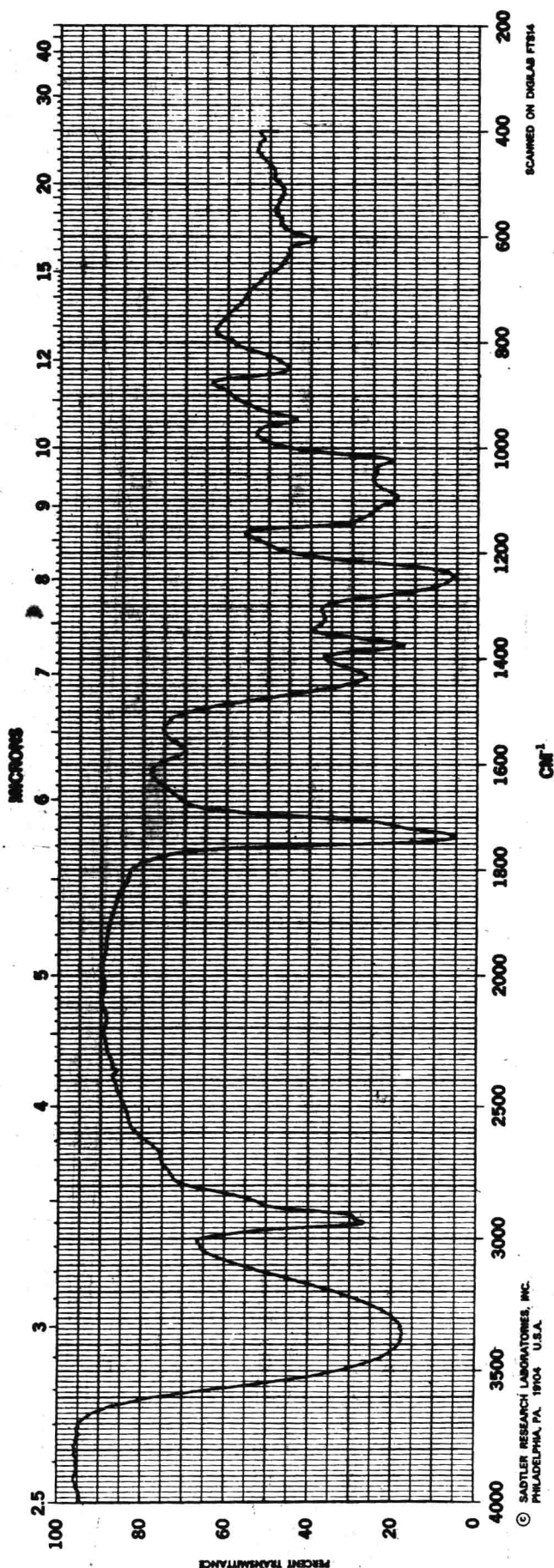
Average Molecular Weight 2,000

Source of Sample: Aldrich Chemical Company, Inc.

Film(Cast from H₂O)

MONOMERS AND POLYMERS

GRATING SPECTRA



D 7801 K



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POLY(VINYL ALCOHOL)

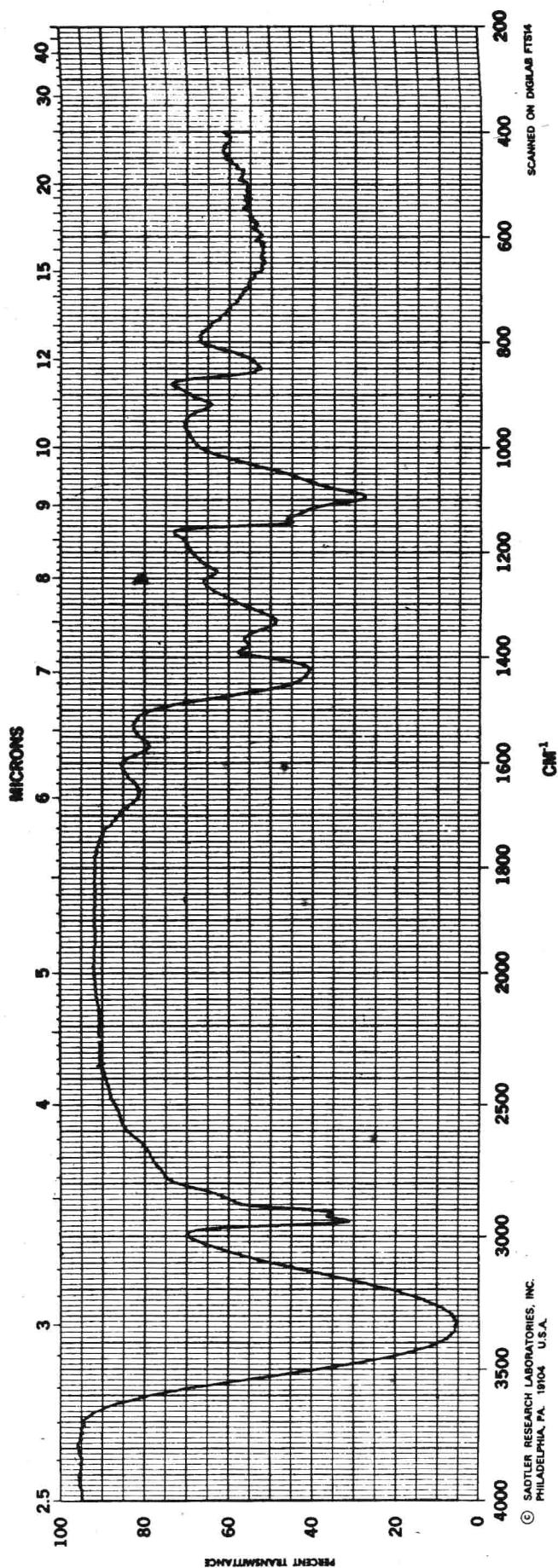
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100% Hydrolyzed
Average Molecular Weight 86,000

MONOMERS AND POLYMERS
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Source of Sample: Aldrich Chemical Company, Inc.
Film(Cast from H₂O)



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SCANNED ON DIGILAB FT/84

D 7802 K



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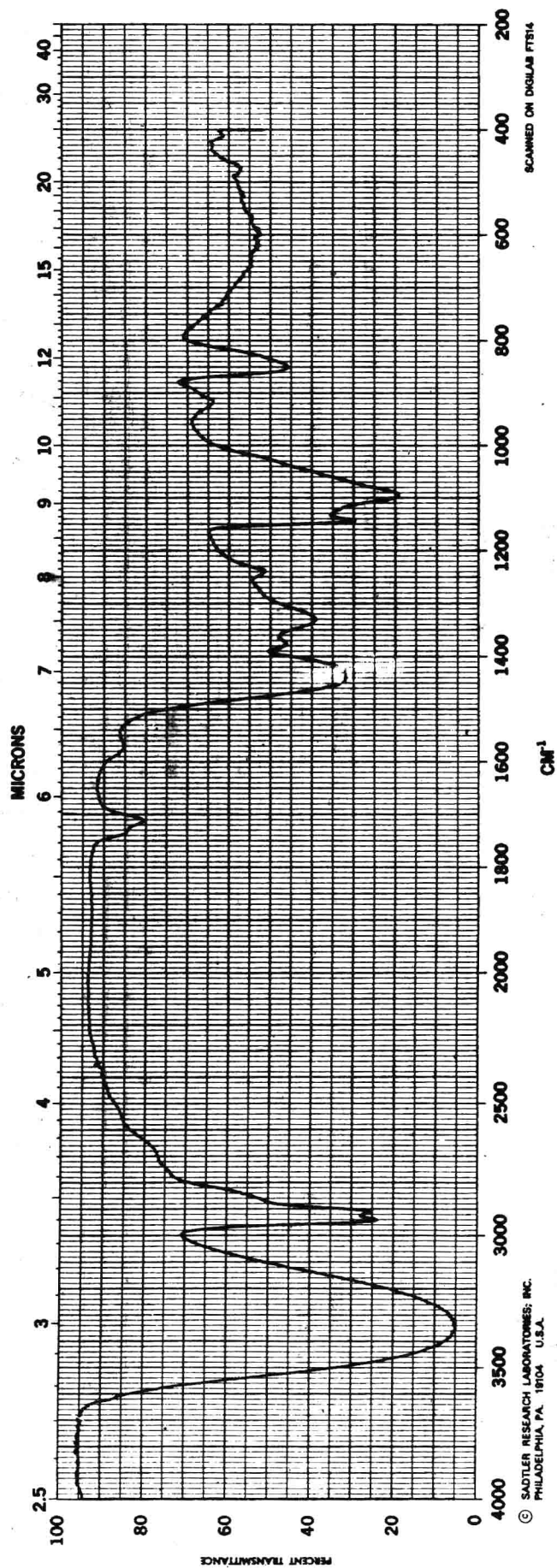
POLY (VINYL ALCOHOL)

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98% Hydrolyzed
Average Molecular Weight 88,000

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GRATING SPECTRA

Source of Sample: Aldrich Chemical Company, Inc.
Film (Cast from H₂O)



D 7803 K



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POLY(VINYL ALCOHOL)

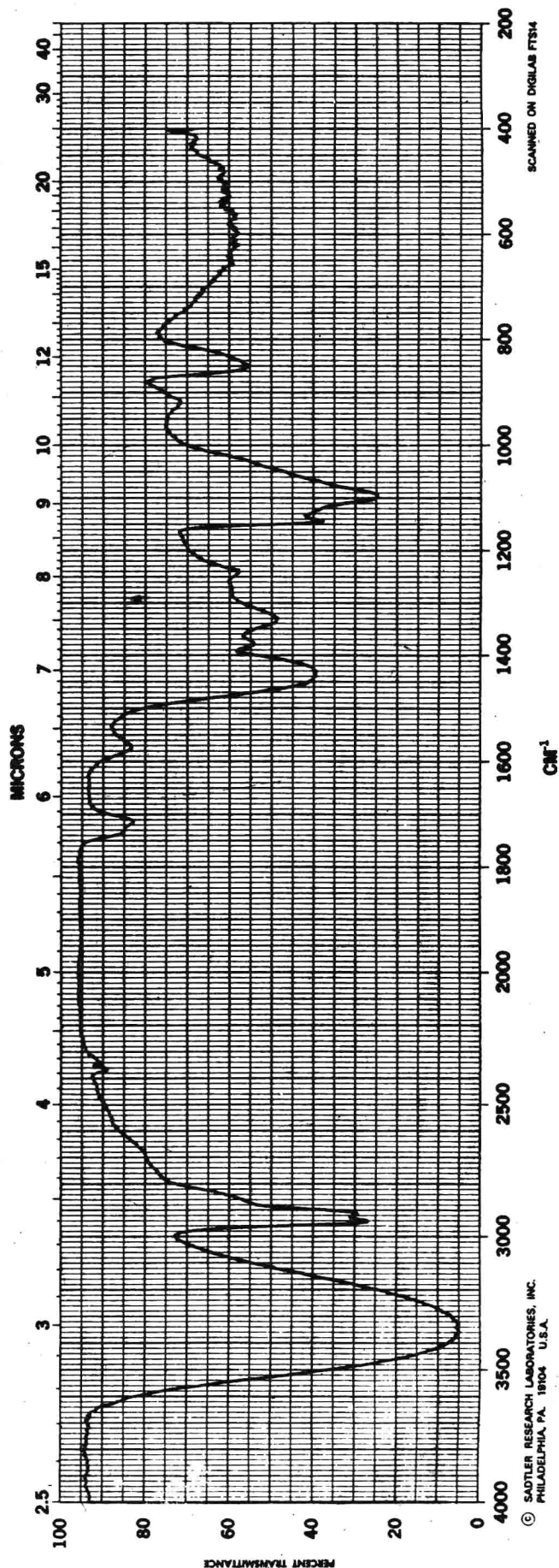
98% Hydrolyzed
Average Molecular Weight 126,000

Source of Sample: Aldrich Chemical Company, Inc.
Film(Cast from H₂O)

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D 7804 K



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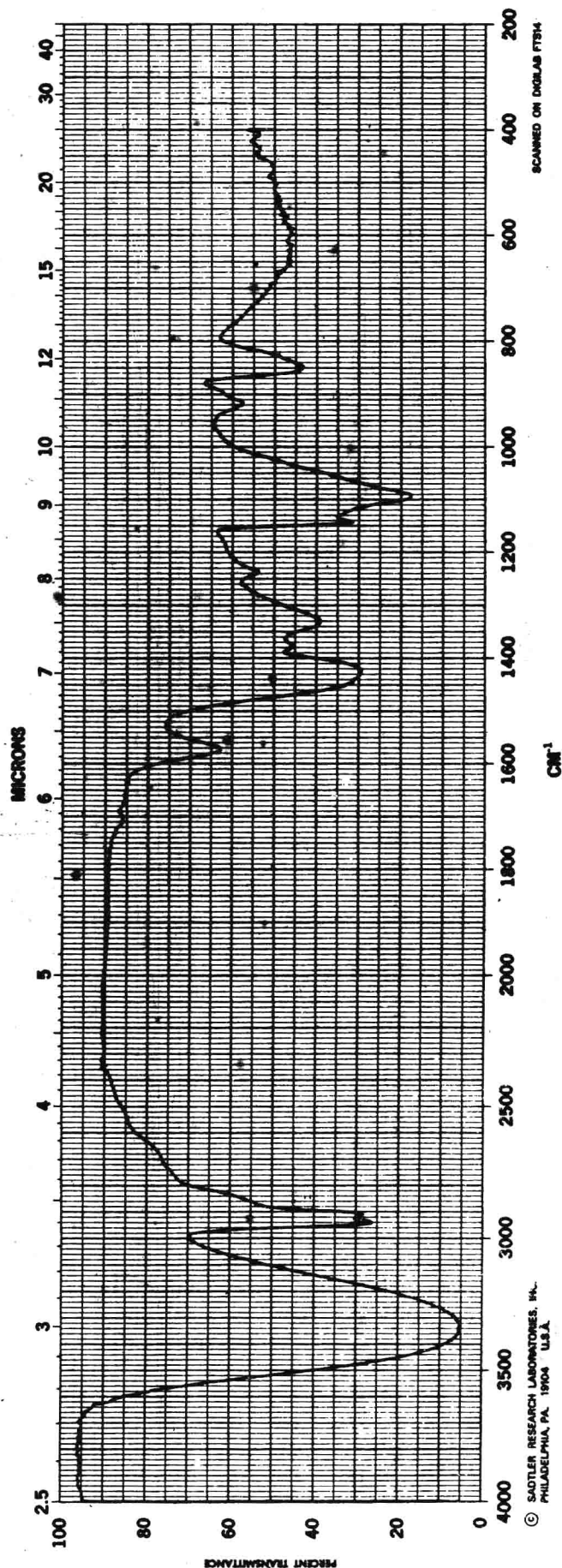
POLY(VINYL ALCOHOL)

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100% Hydrolyzed
Average Molecular Weight 115,000
Solubility parameter 13.4
Density 1.269; n_D^{20} 1.5; Tg 99°C; Tm 258°C
Source of Sample: Aldrich Chemical Company, Inc.
Film(Cast from H₂O)

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D 7805 K



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POLY(VINYLBENZYL CHLORIDE)

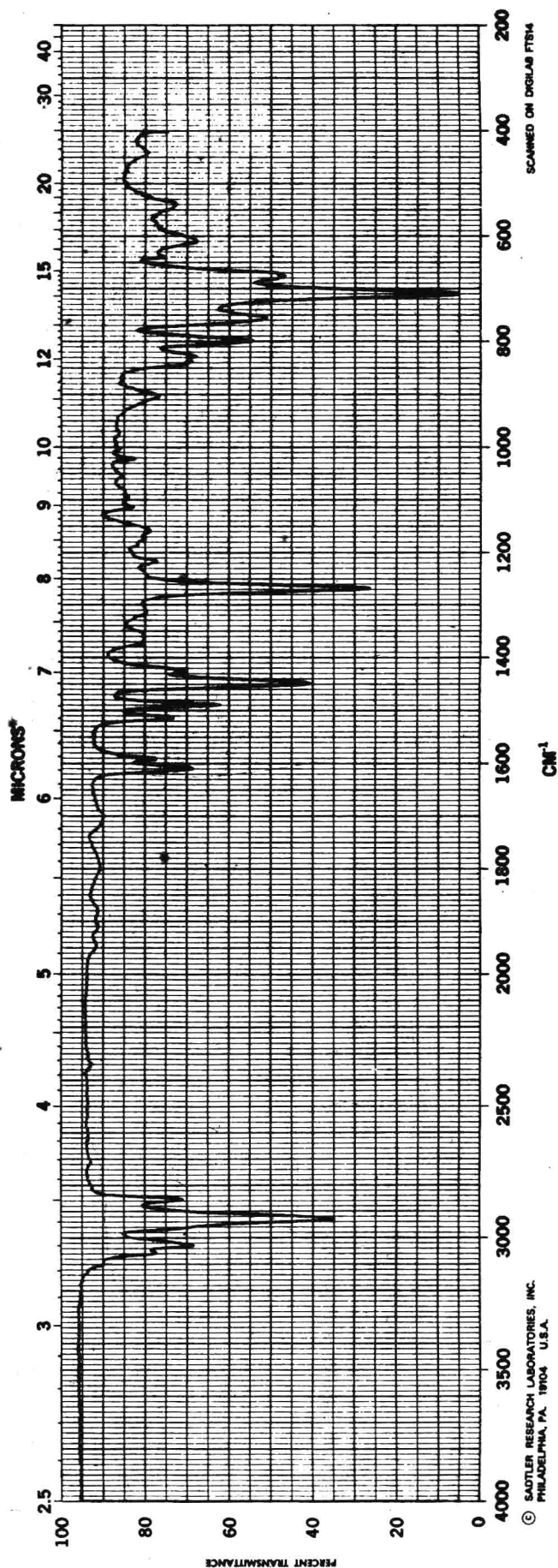
60/40 MIXTURE O- AND P- ISOMERS

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GRATING SPECTRA**

**Source of Sample: Aldrich Chemical Company, Inc.
Film(Cast from CHCl_3)**



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D 7806 K



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POLY(VINYL BUTYRAL)

Average Molecular Weight 36,000

Density 1.083; n_D^{20} 1.485

Tg 51°C

Source of Sample: Aldrich Chemical Company, Inc.

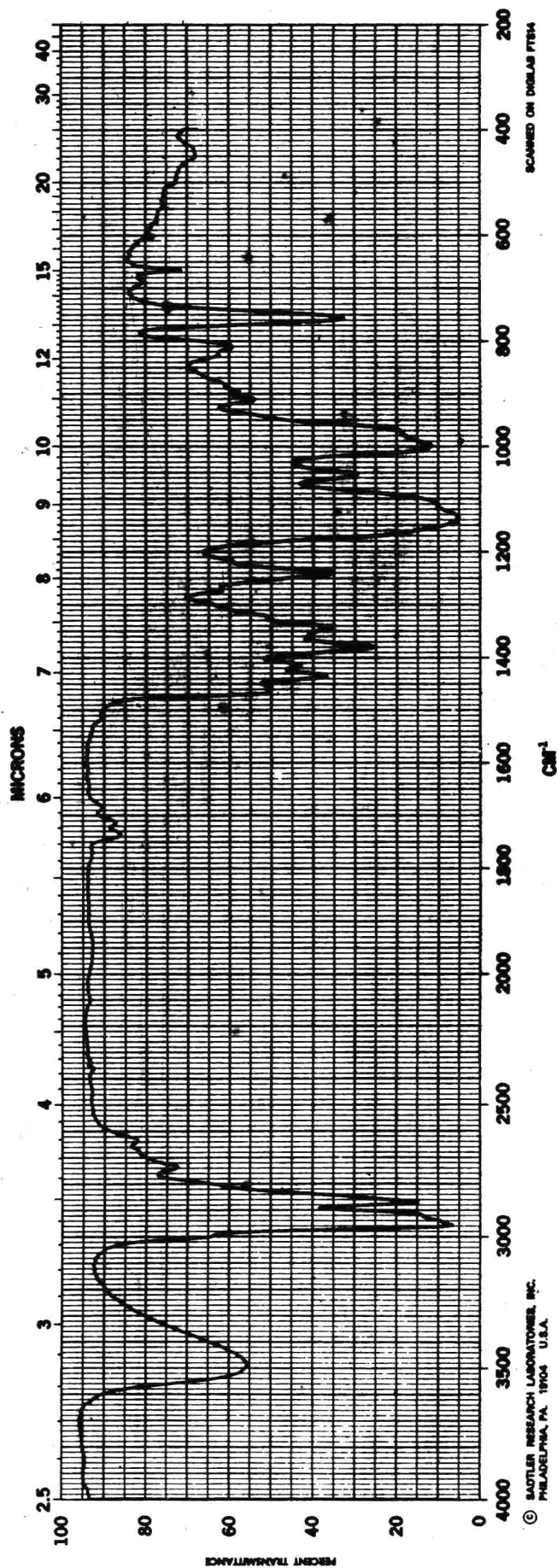
Film(Cast from CHCl_3)

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D 7807 K



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POLY(N-VINYLCARBAZOLE)

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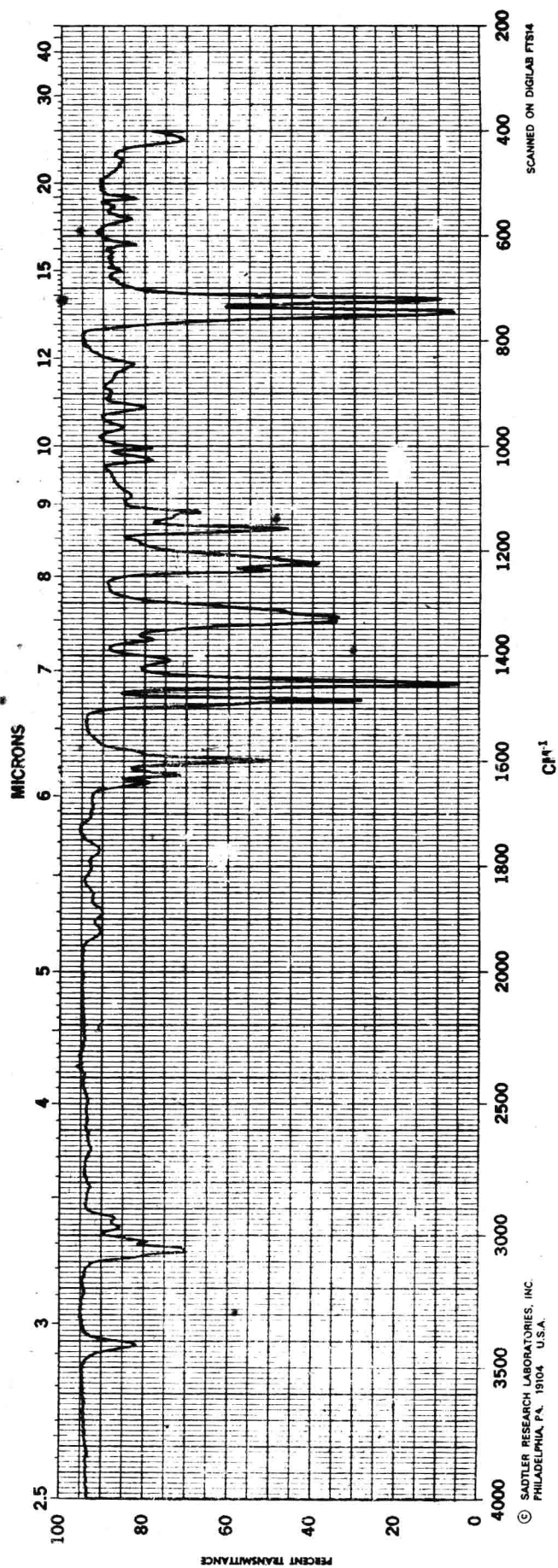
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Density 1.2
T_g 200°C; n_D²⁰ 1.683

Source of Sample: Aldrich Chemical Company, Inc.
Film(Cast from CHCl₃)

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CM⁻¹

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D 7808 K



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POLY(VINYL CHLORIDE)

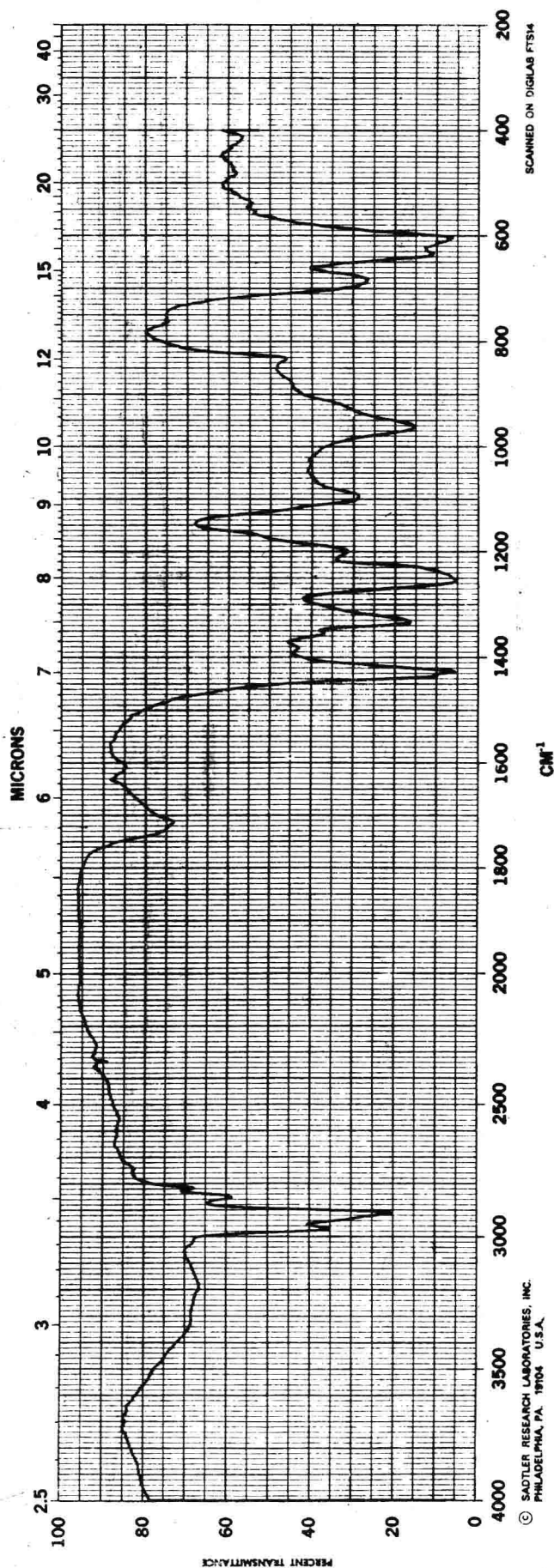
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Inherent Viscosity 1.26; Solubility parameter 9.53
Density 1.385; n_D^{20} 1.539
T_g 85°C; T_m 285°C
Source of Sample: Aldrich Chemical Company, Inc.
KBr Wafer

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D 7809 K



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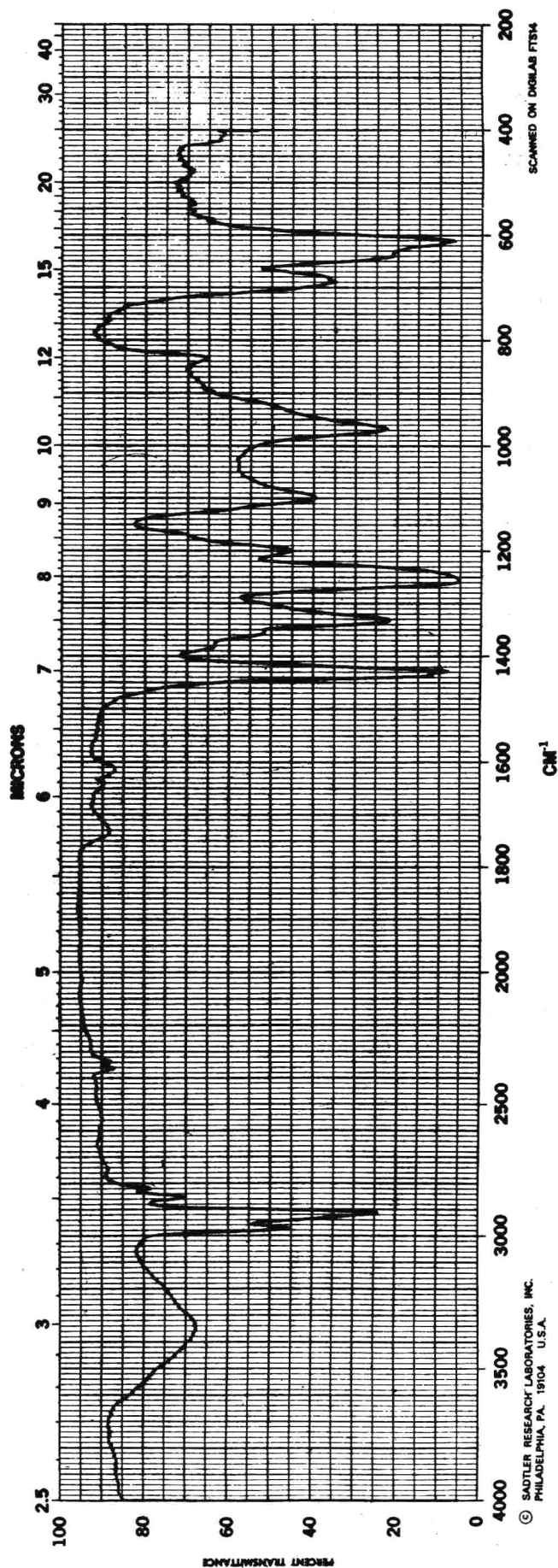
POLY(VINYL CHLORIDE) †

High Molecular Weight
Inherent Viscosity 1.02
Density 1.40
Source of Sample: Aldrich Chemical Company, Inc.
KBr Wafer

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D 7810 K



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POLY(VINYL CHLORIDE)

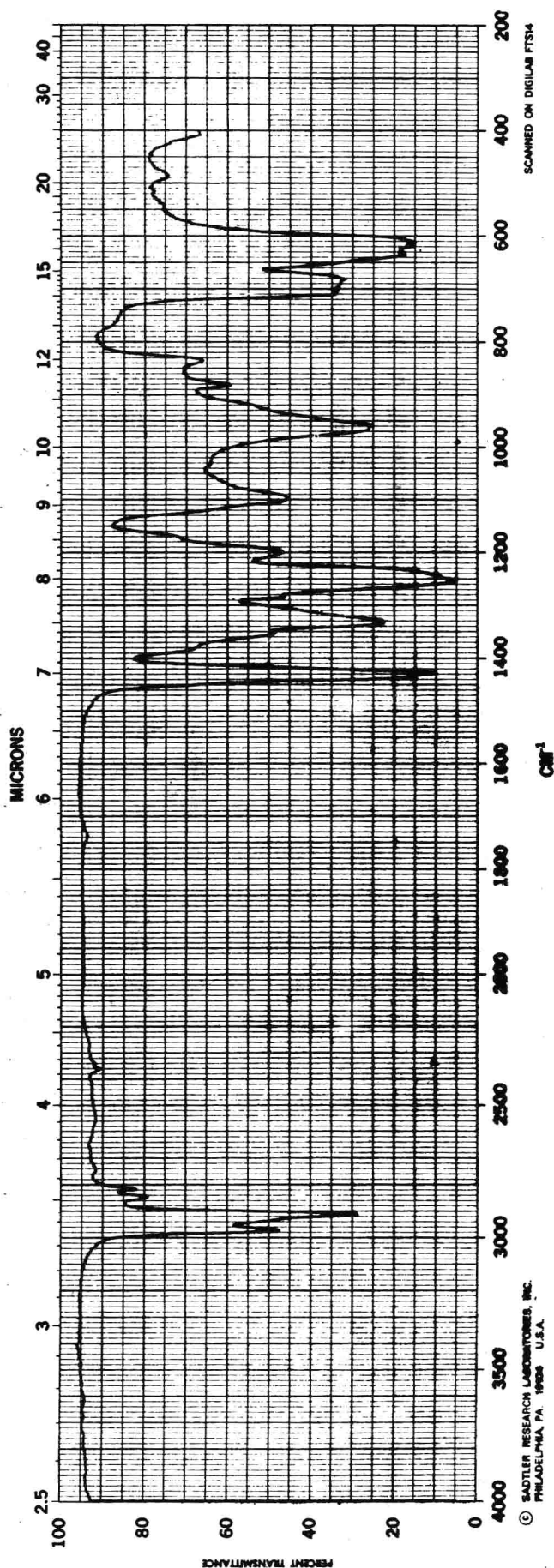
Low Molecular Weight
Inherent Viscosity 0.65
Density 1.40
Cancer Suspect Agent
Source of Sample: Aldrich Chemical Company, Inc.
Film(Cast from ethylene dichloride)

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SCANNED ON DIGILAB FTS14

D 7811 K



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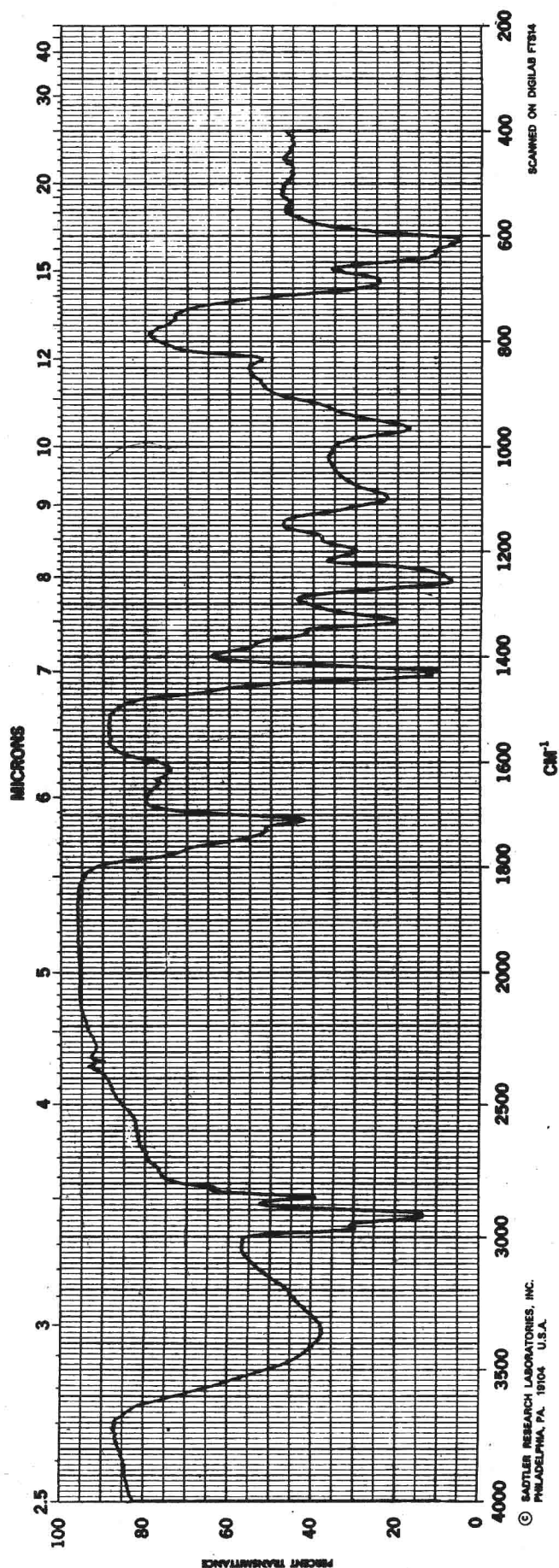
POLY(VINYL CHLORIDE), CARBOXYLATED

Carboxy content 1.8%
Density 1.39
Cancer Suspect Agent
Source of Sample: Aldrich Chemical Company, Inc.
KBr Wafer

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GRATING SPECTRA



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D 7812 K