

RESEARCH & DEVELOPMENT

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A BIBLIOGRAPHY ON VINYL CHLORIDE

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- 222 ACGIH: Documentations of Threshold Limit Values for Substances in
Workroom Air 3rd ed pp. 1-8, 1971
- 207 Albright, L.F.: Vinyl Chloride Processes. Chem Eng 74:123-130, 1967
- 211 Albright, L.F.: Manufacture of Vinyl Chloride. Chem Eng 74:219-226,
1967
- 212 Albright, L.F.: Polymerization of Vinyl Chloride. Chem Eng 74:151-158,
1967
- 213 Albright, L.F.: Vinyl Chloride Polymerization by Suspension
Process Yields Polyvinyl Chloride Resins. Chem Eng 74:145-152,
1967
- 214 Albright, L.F.: Vinyl Chloride Polymerization by Emulsion, Bulk
and Solution Processes. Chem Eng 74:85-92, 1967
- 156 Ambrosio, F. and Armeli, G.: Skin Hazards and Their
Prevention in various Plastics Industries. Atti del Symposium
Sulla Prevenzione Delle Dermatosi Professionali Conf. Paper
pp.275-293, 1970
- 156 Anghelescu, F. et al: Clinico-Pathogenic Considerations of Raynaud's
Phenomenon in the Employees of Polyvinyl Chloride Industry.
Medicina Interna 21(4):473-482, 1969
- 178 Anon: Vinyl Chloride Survey Starts. Chemecology p.5, Aug 1973
- 032 Antonyuzhenko, V.A.: Professional Intoxication with Vinylchloride. Gig
Truda 12(3):50-52, 1968
- 111 Antonyuzhenko, V.A.; Golova, I.A. and Alieva, N.K.: The State of the
Analysors Function in Chronic Occupational Poisoning with Some
Narcotic Substances. Gig Truda 9:19-22, 1972
- 101 Arena, J.M.: Vinyl Chloride Poisoning; Toxicology...Symptoms...
Heat 1973 3rd ed, Charles C. Thomas, Springfield, Ill.
pp.67-249, 1973
- 038 Autian, J.: Toxicity, Untoward Reactions, and Related Considerations in
the Medical Use of Plastics. J Pharm Sci 53(11):1289-1301, 1964
- 100 Baretta, E.D., G. and Mutchler, J.E.: Monitoring Exposures
to Vinyl Chloride Vapor: Breath Analysis and Continuous Air
Sampling. J Pharm Sci 58(6):537-544, 1969
- 021 Basalae, A. and Kochetkov, A.G.: Pathogenesis of
Change in Lung due to Long-Term Exposure to the Effect of Vinyl
Chloride. Gig Truda 16(2):24-27, 1972

- 018 Basalaev, A.V.: Experience with the use of large-frame photofluorography in examining skeletal bones of persons occupationally dealing with unsaturated hydrocarbons of the ethylene series (olefins) and their chlorine derivatives (Vinyl Chloride, Trichloroethylene). Gig Truda 14(11):34-37, 1970
- 138 Bensted, J.P.M.: Experimental Studies in Mice on the Late Effects of Radioactive and Nonradioactive Contrast Media. Annals of the New York Acadamey of Sciences 145:728-737, 1967
- 221 Bergwein, K.: Pure Hydrocarbons, Liquified Propellants and Vinyl Chloride as Aerosol Propellants and Mixtures. Kosmetik-Parfum-Drogen Rundschau 8(1-2):20-22, 1970
- 087 Bischoff, F.: Organic Polymer Biocompatibility and Toxicology. Clin Chem 18(9):869-894, 1972
- 120 Boettner, E.A. and Weiss, B.: An Analytical System for Identifying the Volatile Pyrolysis Products of Plastics. AIHAJ 28:535, 1967
- 109 Bormann, G. and Leeser, A: 2-Phenylindole as Stabilizer in Polyvinyl Chloride(PVC). Arch Tox 21:1, 1965
- 140 Boytsov, A.N.: Problems of Industrial Hygiene in New Plants for the Manufacture of Synthetic Resins and Plastics. Gig Truda 11:20-27, 1963
- 012 Brand, K.G., Buoen, L.C. and Brand, I.: Carcinogenesis From Polymer Implants: New Aspects from Chromosomal and Transplantation Studies During Premalignancy. J NCI 39(4):663-679, 1967
- 183 Clapp, J.J., Kaye, C.M. and Young, L.: Metabolism of Allyl Compounds in the Rat. Biochem J 114(1):6p-7p, 1969
- 130 Clayson, D.B.: Chemical Carcinogenesis(BOOK). pp.101-112, 1962
- 126 Cook, W.A., Giever, P.M., Dinman, B.D. and Magnuson, H.J.: Occupational Acroosteolysis II. An Industrial Hygiene Study. Arch Env Health 22(1):74-82, 1971
- 077 Cylwik, B.: Histological and Histochemical Changes in liver During Experimental Poly (vinyl chloride) Pneumoconiosis. Roczn Akad Med Bialymstoku 17:93-111, 1972
- 208 D'yachuk, I.A.: A Contribution to the Hygienic Evaluation of PVC Floor Tiles for Apartments. Hyg and Sanit 35(3):424-7, 1970
- 198 Danziger, H.: Accidental Poisoning by Vinyl Chloride. Can Med Assoc J 82(16):828-830, 1960

- 133 Deese, D.E. and Joyner, R.E.: Vinyl Acetate: A Study of Chronic Human Exposure. AIHAJ 30:449-457, 1969
- 058 Dehaan, R.L.: Toxicity of Tissue Culture Media Exposed to Polyvinyl Chloride Plastic. Nature(London), New Biol 231(20):85-86, 1971
- 184 Deichmann, W.B.: Toxicology of Drugs and Chemicals 4th ed(BOOK) Academic Press New York pp620-1, 1969
- 125 Dinman, B.D., Cook, W.A., Whitehouse, W.M., Magnuson, H.J. and Ditchek, T.: Occupational Acroosteolysis I. An Epidemiological Study. Arch Env Health 22(1):61-73, 1971
- 127 Dodson, V.N., Dinman, B.D., Whitehouse, W.M., Nasr, A.N.M and Magnuson, H.J.: Occupational Acroosteolysis III. A Clinical Study. Arch Env Health 22(1):83-91, 1971
- 086 Fabiszewska-Gorna D., Kozakiewicz, A.: Plastic in Opthamology: I. General Characteristics of Plastics. Klin Oczna, 41(5):747-751, 1971
- 185 Fairhall, L.T.: Industrial Toxicology 2nd ed(BOOK) Hafner Publishing Co New York pp356-7, 1969
- 143 Filatova, V.S.: The Hygienic Evaluation of New Technological Processes in the Chemical Industry. Labor Hyg and Occ Diseases 11:1-6, 1966
- 151 Filatova, V.S. and Antonyuzhenko, V.A.: Hygienic Conditions of Work and Occupational Disease Incidence Among Workers Engaged in Production of Suspension Polyvinyl Chloride Reviewed Dynamically for a Number of Years. Gig Truda 4:32-34, 1971
- 157 Filatova, V.S. et al: Occupational Hygiene and Health Condition of Workers Engaged in the Production of Latex Polyvinyl Chloride. Gig Truda 8:9-14, 1965
- 202 Filatova, V.S. and Gronsberg, E.Sh.: Sanitary-Hygienic Conditions of Work in the Production of Polychlorvinyl Tar PVC and Measures of Improvement. Gig Sanit 1:38-42, 1957
- 154 Fregert, S. and Rorsman, H.: Hypersensitivity to Epoxy Resins Used as Plasticizers and Stabilizers in Polyvinyl Chloride(PVC) Resins. Acta Dermato-Venereologica 43:10-13, 1963
- 162 Gabor, S. et al: Comments on the Biochemical Alterations in Workers of the Vinyl Chloride Synthesis and Polymerization Industry. Igiens 13(5):409-18, 1964

- 133 Deese, D.E. and Joyner, R.E.: Vinyl Acetate: A Study of Chronic Human Exposure. AIHAJ 30:449-457, 1969
- 058 Dehaan, R.L.: Toxicity of Tissue Culture Media Exposed to Polyvinyl Chloride Plastic. Nature(London), New Biol 231(20):85-86, 1971
- 184 Deichmann, W.B.: Toxicology of Drugs and Chemicals 4th ed(BOOK) Academic Press New York pp620-1, 1969
- 125 Dinman, B.D., Cook, W.A., Whitehouse, W.M., Magnuson, H.J. and Ditchek, T.: Occupational Acroosteolysis I. An Epidemiological Study. Arch Env Health 22(1):61-73, 1971
- 127 Dodson, V.N., Dinman, B.D., Whitehouse, W.M., Nasr, A.N.M and Magnuson, H.J.: Occupational Acroosteolysis III. A Clinical Study. Arch Env Health 22(1):83-91, 1971
- 086 Fabiszewska-Gorna D., Kozakiewicz, A.: Plastic in Opthamology: I. General Characteristics of Plastics. Klin Oczna, 41(5):747-751, 1971
- 185 Fairhall, L.T.: Industrial Toxicology 2nd ed(BOOK) Hafner Publishing Co New York pp356-7, 1969
- 143 Filatova, V.S.: The Hygienic Evaluation of New Technological Processes in the Chemical Industry. Labor Hyg and Occ Diseases 11:1-6, 1966
- 151 Filatova, V.S. and Antonyuzhenko, V.A.: Hygienic Conditions of Work and Occupational Disease Incidence Among Workers Engaged in Production of Suspension Polyvinyl Chloride Reviewed Dynamically for a Number of Years. Gig Truda 4:32-34, 1971
- 157 Filatova, V.S. et al: Occupational Hygiene and Health Condition of Workers Engaged in the Production of Latex Polyvinyl Chloride. Gig Truda 8:9-14, 1965
- 202 Filatova, V.S. and Gronsberg, E.Sh.: Sanitary-Hygienic Conditions of Work in the Production of Polychlorvinyl Tar PVC and Measures of Improvement. Gig Sanit 1:38-42, 1957
- 154 Fregert, S. and Rorsman, H.: Hypersensitivity to Epoxy Resins Used as Plasticizers and Stabilizers in Polyvinyl Chloride(PVC) Resins. Acta Dermato-Venereologica 43:10-13, 1963
- 162 Gabor, S. et al: Comments on the Biochemical Alterations in Workers of the Vinyl Chloride Synthesis and Polymerization Industry. Igiens 13(5):409-18, 1964

- 152 Gage, J.C.: The Subacute Inhalation Toxicity of 109 Industrial Chemicals. Br J Ind Med 27:1-18, 1970
- 207 Gallant, R.W.: Physical Properties of Hydrocarbons. Hydrocarbon Processing & Petroleum Refiner 45(6):153-60, 1966
- 146 Gavruseyko, O.M. and Filatova, V.S.: Hygienic Evaluation of Certain Types of Drying Units Used in the Chemical Industry. Gig Truda 1:32-39, 1959
- 112 Genkina, T.I., et al: The Evaluation of Harmful Substances from Some Polyvinyl Chloride Floor Coverings. Sb Tr Vses Nauch-Iss Inst Nov Stroit 14:13, 1966
- 186 Gleason, M.N., Gosselin, R.E., Hodge, H.C. and Smith, R.P.: Clinical Toxicology of Commercial Products(BOOK), The Williams and Wilkins Co., Baltimore. p.151, 1969
- 110 Gohlke, R. and Springer, E.: Toxicological--Histochemical Investigation of Some PVC Stabilizers. Ztschr f dig Hyg u ihre Grezgebiete 11:437, 1965
- 096 Grigorescu, I. and Toba, Ch.: Vinyl Chloride; Industrial Toxicologic Aspects. Rev Chim 17(8):499-501
- 201 Gronsberg, E.Sh.: Determination of Vinyl Chloride in Air. Gig Sanit 11:43-44, 1954
- 231 Gronsberg, E.Sh.: Colorimetric Determination of Vinyl Chloride in Air. Himieeskaja Promyslennost 42(7)30-31, 1966
- 117 Guess, W.L et al: Characteristics of Subtle Toxicity of Certain Plastic Components Uses in Manufacture of Polyvinyls. C.A. 68:20560q, 1968
- 119 Guess, W.L. and Haberman, S.: Toxicity Profiles of Vinyl and Polyolefinic Plastics and Their Additives. Tech Pap Reg Tech Conf Soc Plast Eng, NY Sec, 1967; C.A. 68:1706a, 1968
- 103 Harris, D.K.: Some Hazards in the Manufacture and Use of Plastics. Br J Ind Med 16:221, 1959
- 149 Harris, D.K.: Health Problems in the Manufacture and Use of Plastics. Br J Ind Med 10:255-268, 1953
- 192 Harris, D.K. and Adams, W.G.F.: Acro-osteolysis Occurring in Men Engaged in the Polymerization of Vinyl Chloride. Br Med J 5567:712-4, 1967
- 009 Horn, K-H., Pasternak, G. and Graffi, A.: Experiments on the Induction of Tumor-Specific Resistance Against Isologous Transplant of

Sarcomas Induced by Implantation of Plastic Pellets. *Archivon Immunologiae et Therapiae Experimentalis* 14(6):737-742, 1966.

- 132 Horta, J.DaS. Abbatt, J.D. Motta, L, Cayolla da, and Roriz, M.L.:
Lancet 2:201-205, 1965
- 217 Hueg, W.C.: Occ & Environ Cancer of Urinary System
- 129 Hueper, W.C. and Conway, W.D.: Chemical Carcinogenesis and
Cancers(BOOK). Charles C. Thomas, Springfield, Mass. pp.353-365,
1964
- 216 Hunter, D: The Diseases of Occupations(BOOK). Little Brown & Co.,
Boston, 1969 pp.578-642.
- 027 Jaeger, R.J. and Rubin, R.J.: Migration of a Phthalate Ester
Plasticizer from Polyvinyl Chloride Blood Bags Into Stored Human
Tissues. NE J Med 287(22):1114-1118, 1972
- 021 Jensen, S., Jernelov, A., Lange, R., and Palmork, K.H.: Chlorinated By-
Products from Vinyl Chloride Production a New Source of Marine
Pollution. FAO (Food Agric Organ U.N.) Fish Rep 99:170, 1971
- 139 Juhe, S., Lange, C.E. Stein, G and Veltman, G.: Deutsche Medizinische
Wechenschrift, 1972
- 147 Kal'manovich, F.L.: Sanitary-Chemical Characteristics of Polyvinyl
Chloride Floor Coatings. Hyg and Sanit 33(2):274-280, 1968
- 135 Key, M.M.: Occupational Dermatitis from Plastics. JMA Georgia 57:421-
425, 1968
- 004 Kogan, A.K. and Tugarinova, V.N.: On The Blastomogenic Action of
Polyvinyl Chloride. Vop Onkol 5:540-545, 1959
- 006 Kogan, A.K. and Raikhlín, N.T.: Dynamics of Morphological Changes in
the Connective Tissue Capsules Developing Around the Plastic
Implants During the Malignization Process. Arkh Path 23(12):62-68,
1961
- 163 Kotulski, B.: Characteristics and Treatment of Waste Waters from
Production of Vinyl Resins. Gaz Woda 38(10):336-339, 1964
- 025 Kramer, C.G. and Mutchler, J.E.: The Correlation of Clinical and
Environmental Measurements for Workers Exposed to Vinyl Chloride.
AIHAJ 33(1):19-30, 1972
- 189 Lefauz, R.: Practical Toxicology of Plastics(BOOK). CRC Press,
Cleveland, Ohio pp81-3, 1968

- 083 Leong, B.K. and Torkelson, T.R.: Effects of Repeated Inhalation of Vinyl Bromide in Laboratory Animals with Recommendations for Industrial Handling. *AIHAJ* 31:1-11, 1970
- 092 Lester, D., Greenberg, L.A. and Adams, W.R.: Effects of Single and Repeated Exposures of Humans and Rats to Vinyl Chloride. *AIHAJ* 24(3):265-275, 1963
- 134 Lewis, C.E. and Kerby, G.R.: An Epidemic of Polymer-Fume Fever. *JAMA* 191(5):375-378, 1965
- 190 Little, K.: What's in PVC? *Lancet* 7563:351-2, 1968
- 024 Markowitz, S.S., McDonald, C.J., Fethiere, W. and Kerzner, M.S.: Occupational Acroosteolysis. *Arch Derm* 106(8):219-223, 1972
- 090 Mastromatteo, E., Fisher, A.M., Christie, H. and Danziger, H.: Acute Inhalation Toxicity of Vinyl Chloride to Laboratory Animals. *AIHAJ* 21(5):394-398, 1960
- 206 McDonald, R.A., Shroder, S.A. and Stull, D.R.: Vapor Pressures of Freezing of 30 Organics. *J Chem Eng Data* 4(4):311-313, 1959
- 209 Meshkova, O.V., Dmitrieva, V.N. and Bezugly, V.D.: Polarographic Analysis of Waste Waters of Polyvinyl Chloride Production. *The Soviet Chem Industry* 47(4):252-5, 1971
- 240 Meyerson, L.B. and Meier, G.C.: Cutaneous Lesions in Acroosteolysis. *Arch Derm* 106(2):224-227, 1972
- 089 Morris, G.E.: Vinyl Plastics: Their Dermatological and Chemical Aspects. *Arch I H & Occ Med* 8:535-539, 1953
- 205 Morris, H.E.: Integrated Pollution Control. *Petroleum Refiner* 33(12):229-31, 1954
- 199 Nitti, G., Petruzzellis, V. and Fasano, V.: Rheographic Observations Among Workers in The Plastics Industry. *Securitas* 55(8):683-694, 1970
- 123 O'Conner, R.B. and McCord, C.P.: A New Occupational Disease is Born. *JOM* 12:234, 1970
- 141 O'Mara, M.M., Crider, L.B. and Daniel, R.L.: Combustion Products From Vinyl Chloride Monomer. *AIHAJ* 32(3):153-156, 1971
- 002 Oppenheimer, B.S., Oppenheimer, E.T., Stout, A.P. and Danishefsky, I.: Malignant Tumors Resulting from Embedding Plastics in Rodents. *Science* 118:305-306, 1953

- 003 Oppenheimer, B.S., Oppenheimer, E.T., Danishefsky, I., Stout, A.P. and Eirich, F.R.: Further Studies of Polymers as Carcinogenic Agents in Animals. Cancer Research 15:333-340, 1955.
- 010 Oppenheimer, B.S., Oppenheimer, E.T. and Stout, A.P.: Sarcomas Induced in Rodents by Imbedding Various Plastic Films. Proceedings of the Society of Experimental Biology and Medicine 79:366-369, 1952.
- 080 Orr, J.W.: The Production of Liver Tumors by Azo Compounds. Br Med J Bull 4:385-388, 1947
- 193 Patty, F.A.: Industrial Hygiene and Toxicology Vol II(BOOK) Interscience Publishers pp.1303-5, 1963
- 113 Pegum, J.S.: Contact Dermatitis from Plastics Containing Triaryl Phosphates. Br J Derm 78:726, 1966
- 085 Petersen, P., Bredahl, E., Lauritsen, O. and Laursen, T.: Examination of the Liver in Personnel Working With Liquid Rocket Propellant. Br J Ind Med. 27:141-146, 1970
- 118 Popov, L.A. and Yablochkin, V.D.: Sanitary Chemical Features of Gaseous Products of a Polymer Membrane Made from Polyvinyl Chloride. Gig Sanit 32:100, 1967
- 150 Popov, L.A. and Yablochkin, V.D.: Characteristics of Gases Released by Polyvinyl Chloride Film. Hyg and Sanit 32(7):114-117, 1967
- 137 Prendergast, J.A. Jones, R.A., Jenkins, L.J. Jr. and Siegel, J.: Effects on Experimental Animals of Long-Term Inhalation of Trichloroethylene, Carbon Tetrachloride, 1,1,1-Trichloroethane, Dichlorodifluoromethane, and 1,1-Dichloroethylene. T & AP 10:270-289, 1967
- 011 Radeva, M. and Dinoeva, S.: Investigation of the Blastomogenic Action of Polyvinyl Chloride Resin Used in the Food Industry. Onkologia Informatisionen Biuletin Prilizhenie 3:24-28, 1970
- 007 Raikhlin, N.T. and Kogan, A.K.: The Development and Malignant Transformation of Connective Tissue Capsules Forming around Implants of Plastic Material. Problems of Oncology 7(9):1247-1252, 1961; Vop Onkol 7:13-17, 1961
- 114 Reploh, H. et al: The Question of Toxicity from Thermal Disintegration of Plastics. Arch f Hyg u Bakt 150:393, 1966; Bull pf Hyg 42:380, 1967
- 126 Roth, F.: Virchow Archiv 331:119-137, 1958

- 155 Rumyantseva, S. and Goryacheva, L.A.: Glucocortoid Function of the Adrenals in Patients Suffering From Chronic Poisoning with Some Unsaturated and Chlorinated Hydrocarbons. Gig Truda 12(12):16-19, 1968
- 005 Russell, F.E., Simmers, M.H., Hirst, A.E. and Pudenz, R.H.: Tumors Associated with Embedded Polymers. J NCI 23(2):305-311, 1959.
- 215 Sante, L.R.: Manual Roentgenological Technique(BOOK). Edwards Brothers, Inc., Ann Arbor, 1962, p. 291
- 187 Sax, N.I.: Dangerous Properties of Industrial Materials, Van Nostrand Reinhold(BOOK). pp.1227-8
- 105 Scheffel, V.O.: Leaching of Lead Stabilizers from Poly (vinyl) chloride Water Supply Pipes. Gig Sanit. 29:105, 1964
- 188 Schottek, W.: The Toxicology of Vinyl Chloride. Chemische Technik 21(11):708-711, 1969
- 237 Shabad, L.M.: Plastics Carcinogenesis, Some Experimental Data and Its Possible Importance for Clinic and Prophylaxis of Cancer. Potential Carcinogenic Hazards from Drugs(BOOK), UICC Monograph Series Vol 7 pp.185-195, 1967
- 144 Shelley, P.G. and Sills, E.J.: Monomer Storage and Protection. Chemical Engineering Progress 65(4):29-35, 1969
- 106 Slepak, N.I. and Teplyakova, R.V.: Hygienic Evaluation of Polyvinyl Chloride Imitation Leather Upholstery. Hyg and Sanit 29:20, 1964
- 182 Smirnova, N.A.: Delayed Sequelae of Acute Occupational Poisoning with Certain Hydrocarbons and Their Derivatives. Gig Truda 14(5):50-51, 1970
- 042 Smyth, H.F., Jr. and Weil, C.S.: Chronic Oral Toxicity to Rats of a Vinyl Chloride-Vinyl Acetate Copolymer. T & AP 9(3):501-504, 1966
- 196 Sollmann, T.: A Manual of Pharmacology 8th ed. W.B. Saunders Co Philadelphia, Pa. p.918, 1964
- 197 Spector, W.S.: Handbook of Toxicology Vol I. W.B. Saunders Co, Philadelphia, Pa pp.352-3, 1956
- 111 Springer, E.: Animal Experiments on the Toxicity of Some Vinyl Chloride-Vinylidene Chloride Mixed Polymerates and Two Stabilizers. Ztschr f d g Hyg ihre Grenzgebiete 11:442, 1965; Bull of Hyg 40:1358, 1965

- 008 Stankevich, K.I.: Experimental Data on the Blastomogenic Effect of Coumarone and Polyvinyl Chloride Plates. Vrach Delo 11:108-114, 1962
- Stankevich, K.I. et al: Hygienic Examination of Some Polymer Materials Used in Housing Construction. Vrach Delo 5:105-9, 1968
- 121 Stark, G.W.V.: Toxic Gases from PVC(Polyvinyl Chloride) in Household Fires. Rubber and Plastic Age 50:283-4, 1969
- 191 Stecher, P.G.(ed): The Merck Index 8th ed(BOOK). Merck and Co, Rahway, New Jersey p.1108, 1968
- 107 Steel, J.: Health Hazards in the Welding and Cutting of Paint-Primed Steel. Ann Occ Hyg 7:247, 1964
- 038 Stulova, E.A.: Characteristics of the State of Thermal Regulation in Chronic Vinyl Chloride Intoxication. Gig Truda 17:53-55, 1973
- Stankevich, K.I. et al: Arterial Hypertension and Raynaud's Phenomenon in Polyvinyl Chloride Production Workers. Medichem pp520-28, 1972
- 030 Suciu, I., Drojman, I. and Valaskai, M.: A Study of Diseases Caused by Vinyl Chloride. Med Lav 58(4):261-271, 1967
- 200 Sultzmänn : Air Sampling etc(BOOK)
- 122 Szende, B. et al: Pneumoconiosis Caused by the Inhalation of Polyvinyl Chloride Dust. Med Lav 61:433-6, 1970
- 079 Tantsyrev, G.D. and Kozlov S.T.: Determination of Hydrocarbon Chloro-Derivatives on the "Khromass-2"Chromato-mass spectrometer. Zh Anal Khim 23(12):1881-3, 1968
- 082 Torkelson, T.R., Oyen, F. and Rowe, V.K.: The Toxicity of Vinyl Chloride as Determined by Repeated Exposure of Laboratory Animals. AIHAJ 22(5):354-361, 1961
- 123 Trevelick, R.A. and Adam, J.A.: A Review of Industrial Hygiene Standards and Their Application. Transactions of the Society of Occupational Medicine 19(4):112-117, 1969
- 131 Truhaut, R.: UICC Monograph Series 7:188-195, 1967
- 115 Tsuchiya, T. and Sumi, T.: Thermal Decomposition Products of Poly(vinyl)chloride. J App Chem 17:364, 1967
- 051 Vazin, A.N. and Plokhova, E.I.: On Obtaining an Experimental Model of the 'Toxic Angioneurosis' Arising Under the Chronic Effect of Vinyl Chloride Vapor on the Organism. Gig Truda 12(7):47-49, 1968

- 051 Vazin, A.N. and Plokhova, E.I.: Changes in the Cardiac Activity of Rats Chronically Exposed to Vinyl Chloride Vapors. Farmakol Toksikol 32(2):320-2, 1969
- 164 Vazin, A.N. and Plokhova, E.: Dynamics of the Level of Adrenaline Like Substances in the Blood of Rabbits Under the Chronic Effect of Vinyl Chloride Vapor. Gig Truda 13(6):46-7, 1969
- 148 Vazin, A.N.: Changes in the Rate of Incolcation of Conditioned Reflexes in Rats on Prolonged Exposure to Vinyl Chloride Vapor in Concentrations Approaching the Maximum Permissible Concentration. Hyg and Sanit 35(6):434-435, 1970
- 232 Vazin, A.N. and Plokhova, E.I.: Pathogenic Effect of Chronic Exposure to Vinyl Chloride on Rabbits. Farmakol Toksikol 31(3):369-372, 1968
- 001 Viola, P.L., Bigotti, A. and Caputo, A.: Oncogenic Response of Rat Skin, Lungs and Bones to Vinyl Chloride. Cancer Research 31:516-522, 1971.
- 033 Viola, P.L.: Pathology of Vinyl Chloride. Med Lav 61:174-180, 1970; JOM 13:156, 1971
- 145 Weeks, M.H. and Yevich, P.: The Toxicity of Combustion Products of Pyrotechnics. AIHAJ 24(6):622-629, 1963
- 203 Williams, F.W. and Umstead, M.E.: Determination of Trace Contaminants in Air by Concentrating on Porous Polymer Beads. Analytical Chemistry 40(14):2232-4, 1968
- 194 Wilson, R.H., McCormick, W.E., Tatum, C.F. and Creech, J.L.: Occupational Acroosteolysis. JAMA 201(8):577-81, 1967
- 108 Zdrazil, J. and Picha, F.: Phthalic Acid Esters in the Atmosphere in the Processing of Polyvinyl Chloride. Pracovni Lekar 17:257, 1965
- 116 Zedda, S.: The Prevention of Lead Poisoning in the Manufacture of Plastic Materials. Med Lav 58:370, 1967
- 234 --- ---: Data Sheet-Vinyl Chloride. Air Products and Chemicals Inc., Specialty Gas Dept.
- 104 --- ---: Decomposition Products--Various Materials; Michigan's Occupational Health 7(3):4, 1962
- 093 --- ---: Hygienic Guide Series--Vinyl Chloride(Chloroethylene, Chloroethane). AIHAJ 25(4):421-3, 1964

- 235 --- ---: Occupational Diseases-A Guide to Their Recognition.
USDHEW,PHS pp.237-8, 1964
- 236 --- ---: Properties and Essential Information for Safe Handling of
Vinyl Chloride-Chemical Safety Data Sheet SD-56. Manufacturing
Chemists Association, 1972
- 124 --- ---: White Fingers. JAMA 215:631, 1971
- 180 --- ---: Env Res 6:132-143, 1973

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