165



IS - 0033-8419
AB - CBAC COPYRIGHT: CHEM ABS Visualization of superficial structures with conventional rapid scanners is difficult. A solid flexible PVC [9002-86-2] gelatin slab used as a stand-off material can provide a const. scan distance and thus overcome the problem of poor near field resoln. PVC gelatin expands the capability of the 3-4 MHz transducer to delineate superficial structures. The measured values for attenuation are displayed by least sq. fit lines at 20-40.degree.. At 200.degree. it attenuates .apprx.2.0 dB/cm at 1 mHz. The velocity at 20.degree. is 1440 m/s for PVC gelatin.
RN - 9002-86-2
EM - 8411

57 SI - TOXBIB/82/180897
AU - Chan OY ; Tan KT ; Kwok SF ; Chio LF
AD - Industrial Health Division, Ministry of Labour.
TI - Study on workers exposed to cadmium in alkaline storage battery manufacturing and PVC compounding.
SO - Ann Acad Med Singapore; VOL 11, ISS 1, 1982, P122-9
LA - Eng
CD - AAMSC
IS - 0304-4602
AB - The extent of cadmium exposure was studied in a cadmium-nickel battery factory and 8 PVC factories using cadmium stabilisers in the compounding of PVC. A total of 101 cadmium-exposed workers and 21 control subjects matched by sex, age, ethnic group and smoking history was investigated. Blood and urine cadmium levels were considerably elevated in the battery workers but were not raised in the PVC workers. These findings were consistent with the results of cadmium-in-air assessments. Among the female battery workers, urine cadmium excretion increased significantly with employment time. There was good correlation between blood and urine cadmium levels among the female subjects. A significant association between blood cadmium levels and prevalence of chest pain was also noted among the females. No low molecular weight proteinuria was detected, but two female battery workers had slight albuminuria and one male PVC worker had glucosuria but had abnormal GTT results.
KW - TOXBIB ; Air Pollutants *ANALYSIS
KW - Air Pollutants, Occupational *ANALYSIS
KW - Cadmium Poisoning OCCURRENCE ; Cadmium BLOOD/*METABOLISM/URINE
KW - Female ; Human ; Male ; Occupational Diseases OCCURRENCE
KW - Polyvinyl Chloride ; Singapore
RN - 7440-43-9; 9002-86-2
EM - 8207

95 SI - CIS/83/00732
CC - 130
AU - Głuszcz M
TI - Chronic vinyl chloride poisoning in workers engaged in the production of polyvinyl chloride using the suspension method (1967-1977)
SO - Studia i materiały monograficzne 1982, No.3, p.61-102. Illus. 42 ref.
PT - JOURNAL ARTICLE
LA - Pol
AB - Literature survey is followed by the results of a 10-year study of 330 workers at risk in Polish polymerisation plants: description of the conditions of exposure; composition of the population studied; scope of the study and methods used (medical examinations, radiographies of extremities, ECG, laboratory tests); discussion of results (clinical picture, morbidity, prognosis); conclusions (there is a relation between the degree of acroosteolysis and of pseudosclerotic changes combined with Raynaud's phenomenon on the one hand and the degree of liver damage on the other).
KW - VINYL CHLORIDE ; CHRONIC POISONING ; PLASTICS INDUSTRY
KW - SUSPENSION POLYMERISATION ; LITERATURE SURVEY
KW - OCCUPATIONAL HEALTH SURVEY ; POLAND ; MORBIDITY ; ACROOSTEOLYSIS
KW - LONG-TERM STUDY ; HEPATIC DAMAGE ; ILO
RN - 75-01-4 ; 9002-86-2
EM - 8411

96 SI - TOXBIB/84/210416
AU - Ganning AE ; Brunk U ; Dallner G
AD - Department of Biochemistry, Arrhenius Laboratory, University of Stockholm, Sweden.
TI - Phthalate esters and their effect on the liver.
SO - Hepatology; VOL 4, ISS 3, 1984, P541-7 (REF: 35)
LA - Eng
CD - GBZ
IS - 0270-9139
AB - The advantageous properties of polyvinyl chloride plastics make these materials indispensable at all levels of human life, and there is no reason to believe that the upward trend of their use will change. One third of most polyvinyl chloride plastics consists of plasticizers, mostly phthalate esters, which may migrate out contaminating our environment and consequently our bodies. Experimental results indicate that chronic exposure to phthalic esters may be responsible for a number of adverse health effects. Phthalates change the structure and function of the liver in a profound manner by inducing peroxisomes, mitochondria and enzymes which participate in fatty acid transport and beta-oxidation. Prolonged administration of phthalate esters, in doses comparable to those occurring in human exposures, seems to have an accumulative effect on the liver. Liver biopsies taken from dialysis patients show peroxisome proliferation which again warn of the possibility that human health may be influenced by

plasticizers.
KW - TOXBIB ; Equipment and Supplies
KW - Fatty Acid Desaturases METABOLISM ; Hemodialysis ; Human
KW - Intestines METABOLISM ; Kidney METABOLISM ; Lipids METABOLISM
KW - Liver *DRUG EFFECTS/METABOLISM/ULTRASTRUCTURE ; Lung METABOLISM
KW - Microscopy, Electron ; Phthalic Acids TOXICITY
KW - Plasticizers *TOXICITY ; Polyvinyl Chloride TOXICITY
KW - Proteins METABOLISM ; Review ; Support, Non-U.S. Gov't
KW - Time Factors ; Tissue Distribution
RN - 84-75-3; 9002-86-2
EM - 8408

97 SI - CIS/82/01757
CC - 230
AU - Goldfarb AS ; Goldgraben GR ; Herrick EC ; Quellette RP
AU - Cheremisinoff PN
TI - Organic chemicals manufacturing hazards
SO - The Butterworth Group, Borough Green, Sevenoaks, Kent, TN15 8PH, United Kingdom, 1981. 430p. Illus. Bibl.
PT - MONOGRAPH
LA - Eng
AB - This book provides industry background information, descriptions of manufacturing processes, an identification of substances present in the process streams and a discussion of the flammability and toxicity hazards associated with those substances and the processes. It is intended for use by chemical manufacturers, engineers and consultants, industrial chemists, industrial hygienists, environmentalists and pollution control engineers. Sections cover: acetic acid by methanol carbonylation; acetaldehyde by liquid-phase ethylene oxidation; esterification process for acrylic acid esters production; condensation process for DL-methionine production; tetraalkyl lead by lead alkylation; oxychlorination and pyrolysis processes for vinyl chloride production; polymerisation processes for polyvinyl chloride; chlorophenols by chlorination of phenol; vinyl acetate by hydroacetylation.
KW - CHEMICAL PRODUCTS ; CHEMICAL INDUSTRY ; HAZARD EVALUATION
KW - TOTAL LOSS CONTROL ; MANUALS ; ACRYLATES ; CHLOROPHENOLS
KW - CHEMICAL PROCESSES ; ILO
RN - 514-10-3 ; 75-07-0 ; 79-10-7 ; 7005-18-7 ; 75-01-4 ; 9002-86-2
RN - 108-05-4 ; 78-00-2
EM - 8411

98 SI - CIS/84/00326
CC - 070
AU - Gonz'alez Fern'andez A
TI - Study of membrane filters suitable for use in the MRE dust sampler
SO - Medicina y seguridad del trabajo /Jan.-Mar. 1982, Vol.30, No.117, p.12-16. Illus. 11 ref.
PT - JOURNAL ARTICLE
LA - Spa
AB - In the framework of studies on dust collecting equipment to be approved for use in mines by the General Directorate of Mines in

MH - Russian S.F.S.R. ; Vinyl Chloride/*adverse effects
MH - Vinyl Compounds/*adverse effects
DA - 830811
DP - 1983 Apr
IS - 0016-9919
TA - Gig Tr Prof Zabol
UI - 83235649
PG - 30-2
ZN - Z1.252.878 ; Z1.542.248.958 ; Z1.950
EA - A
IP - 4
TT - O rasprostranennosti zlokachestvennykh novoobrazovanni"i sredi rabochikh, zaniatykh v proizvodstvakh vinilkhlorida i polivinilkhlorida.
JC - FQ9
RN - 75-01-4 (Vinyl Chloride) ; 9002-86-2 (Polyvinyl Chloride)
EM - 8310
SO - Gig Tr Prof Zabol 1983 Apr;(4):30-2

31 AU - Fishbein L
TI - Toxicity of the components of poly(vinylchloride) polymers additives.
LA - Eng
MH - Animal ; Chemical Industry ; Flame Retardants/toxicity
MH - Free Radicals ; Heat ; Human ; Mice ; Plasticizers/toxicity
MH - Plastics/*toxicity ; *Polyvinyl Chloride ; *Polyvinyls ; Rats
MH - Review
DA - 840530
DP - 1984
IS - 0361-7742
TA - Prog Clin Biol Res
UI - 84194192
PG - 113-36
SB - M
ZN - Z1.107.567.875
RF - 120
VI - 141
JC - PZ5
AA - Author
RN - 9002-86-2 (Polyvinyl Chloride)
EM - 8408
AB - The salient features of the toxicity of a number of additives used in polyvinyl chloride polymers were reviewed with primary emphasis on the toxicity of plasticizers (e.g., diethylhexyl phthalate and its metabolites, butylbenzylphthalate and di(2-ethylhexyl)adipate), heat stabilizers (e.g., organotin and lead stabilizers), blowing agents (e.g., azodicarbonamide), free-radical initiators (e.g., benzoylperoxide, lauroyl peroxide, ter.butylhydroperoxide and di-tert.butylperoxide, and flame retardants (e.g., decabromodiphenyl oxide). The paucity of toxicity data on the vast majority of PVC additives should be stressed.
SO - Prog Clin Biol Res 1984;141:113-36

32 AU - Fitch CW ; Korones SB
TI - Heat shield reduces water loss.
LA - Eng
MH - Body Temperature ; Heating ; Human ; *Incubators, Infant ; Infant
MH - Infant, Newborn ; *Infant, Premature ; Polyvinyl Chloride
MH - *Water Loss, Insensible
DA - 841105
DP - 1984 Sep
IS - 0003-9888
TA - Arch Dis Child
UI - 85021537
PG - 886-8
SB - A ; M
ZN - Z1.542.363.300
IP - 9
VI - 59
JC - 6XG
AA - Author
RN - 9002-86-2 (Polyvinyl Chloride)
EM - 8501
AB - A heat shield covered by polyvinyl chloride film greatly reduced insensible water loss and radiant energy requirements in 12 preterm infants on a radiant cradle. Measured transmittance of radiant energy emitted by the radiant heater was impeded minimally by various thin film plastics but was blocked significantly by Perspex.
SO - Arch Dis Child 1984 Sep;59(9):886-8

33 AU - Ganning AE ; Brunk U ; Dallner G
TI - Phthalate esters and their effect on the liver.
LA - Eng
MH - Equipment and Supplies ; Fatty Acid Desaturases/metabolism
MH - Hemodialysis ; Human ; Intestines/metabolism ; Kidney/metabolism
MH - Lipids/metabolism ; Liver/*drug effects/metabolism/ultrastructure
MH - Lung/metabolism ; Microscopy, Electron ; Phthalic Acids/toxicity
MH - Plasticizers/*toxicity ; Polyvinyl Chloride/toxicity
MH - Proteins/metabolism ; Review ; Support, Non-U.S. Gov't
MH - Time Factors ; Tissue Distribution
DA - 840713
DP - 1984 May-Jun
IS - 0270-9139
TA - Hepatology
UI - 84210416
PG - 541-7
SB - M
ZN - Z1.107.567.875
IP - 3
RF - 35
VI - 4
JC - GBZ
AA - Author
RN - EC 1.14.99.- (Fatty Acid Desaturases)

RN - EC 1.3.99.3 (acyl-CoA dehydrogenase)
RN - 84-75-3 (di-n-hexyl phthalate) ; 9002-86-2 (Polyvinyl Chloride)
EM - 8409
AB - The advantageous properties of polyvinyl chloride plastics make these materials indispensable at all levels of human life, and there is no reason to believe that the upward trend of their use will change. One third of most polyvinyl chloride plastics consists of plasticizers, mostly phthalate esters, which may migrate out contaminating our environment and consequently our bodies. Experimental results indicate that chronic exposure to phthalic esters may be responsible for a number of adverse health effects. Phthalates change the structure and function of the liver in a profound manner by inducing peroxisomes, mitochondria and enzymes which participate in fatty acid transport and beta-oxidation. Prolonged administration of phthalate esters, in doses comparable to those occurring in human exposures, seems to have an accumulative effect on the liver. Liver biopsies taken from dialysis patients show peroxisome proliferation which again warn of the possibility that human health may be influenced by plasticizers.
SO - Hepatology 1984 May-Jun;4(3):541-7

34 AU - Garcia LS ; Shimizu RY ; Brewer TC ; Bruckner DA
TI - Evaluation of intestinal parasite morphology in polyvinyl alcohol preservative: comparison of copper sulfate and mercuric chloride bases for use in Schaudinn fixative.
LA - Eng
MH - Comparative Study ; Copper/*pharmacodynamics ; Evaluation Studies
MH - Feces/microbiology ; Fixatives/*pharmacodynamics ; Human
MH - Mercury/*pharmacodynamics ; Polyvinyl Alcohol/*pharmacodynamics
MH - *Preservation, Biological ; Protozoa/*drug effects
DA - 830909
DP - 1983 Jun
IS - 0095-1137
TA - J Clin Microbiol
UI - 83266091
PG - 1092-5
SB - M
ZN - Z1.107.567.875
IP - 6
VI - 17
JC - HSH
AA - Author
RN - 0 (Schaudinn's fixative) ; 7439-97-6 (Mercury)
RN - 7440-50-8 (Copper) ; 7487-94-7 (mercuric chloride)
RN - 7758-98-7 (copper sulfate) ; 9002-89-5 (Polyvinyl Alcohol)
EM - 8311
AB - As a result of disposal problems inherent in the use of mercury compounds, many laboratories have considered using copper sulfate as a substitute for mercuric chloride in polyvinyl alcohol (PVA) preservative. The primary use for PVA-preserved specimens is the permanent stained smear, the most important technique for the identification of intestinal protozoa. A comparison of organism

Spain, 6 types of membrane filters suited to the Mines Research Establishment (MRE) dust collector were investigated (cellulose nitrate, glass fibre, PVC, polyamide, gelatin, alginate). Aspects discussed are the effects of humidity, the possibility of dust analysis on the membrane itself, and resistance to airflow. In all these studies, membranes of polyvinyl chloride or glass fibre gave the best results.

KW - MEMBRANE FILTERS ; RESPIRABLE DUST ; MINING INDUSTRY
KW - FILTRATION SAMPLING ; DUST MEASUREMENT ; SPAIN ; COMPARATIVE STUDY
KW - INFRARED SPECTROPHOTOMETRY ; DUST ANALYSIS ; ILO
EM - 8411

99 SI - CIS/84/00441
CC - 120
AU - Grasso P ; Mason PL ; Cameron WM ; Sharratt M
TI - Tissue reaction to the intrapleural injection of polyvinyl chloride powder, α-quartz and titanium dioxide
SO - Annals of Occupational Hygiene 1983, Vol.27, No.4, p.415-425. Illus. 23 ref.
PT - JOURNAL ARTICLE
LA - Eng
AB - Intrapleural injections of polyvinyl chloride (PVC) powder, α-quartz (known to be highly fibrogenic) and titanium dioxide (known to be biologically inert) were administered to rats. Reaction to PVC powder was very similar to the reaction to titanium dioxide/macrophage accumulation with very little fibrosis. Reaction to α-quartz was, as expected, strong - consisting of the development of fibrous tissue. The conclusion is that PVC powder inhalation would not lead to silicosis-like diseases.
KW - POLYVINYL CHLORIDE ; RESPIRABLE DUST ; FIBROGENIC EFFECTS
KW - ANIMAL EXPERIMENTS ; LUNG ; COMPARATIVE STUDY
KW - CONNECTIVE TISSUE DEVELOPMENT ; ILO
RN - 9002-86-2 ; 7631-86-9 ; 13463-67-7
EM - 8411

ONE ARTICLE

100 SI - HEEP/84/09353
AU - GRASSO P ; MASON PL ; CAMERON WM ; SHARRATT M
AD - Group Occup. Health Cent., British Petroleum Co. PLC, Chertsey Road, Sunbury-on-Thames, Middlesex TW16 7LN, U.K.
TI - Tissue reaction to the intrapleural injection of polyvinyl chloride powder, alpha-quartz and titanium dioxide.
SO - ANN OCCUP HYG; 27 (4). 1983 (RECD. 1984). 415-426.
LA - ENG
CD - AOHYA
AB - HEEP COPYRIGHT: BIOL ABS. A comparative study was conducted to assess the potency of 3 industrial dusts, PVC (polyvinyl chloride), alpha-quartz and TiO2, in producing fibrosis at the site of deposition when administered to rats by the intrapleural and i.p. routes. PVC and TiO2 produced little reaction; this consisted mainly of macrophage accumulation with little fibrosis which reached a peak 1 wk after treatment and showed no evidence of further progress. alpha-Quartz produced a severe reaction

214 SI - TOXBIB/84/110648
AU - Pastorino U ; Berrino F ; Gervasio A ; Pesenti V ; Riboli E
AU - Crosignani P
AD - OCD Department of National Cancer Institute, Milan, Italy.
TI - Proportion of lung cancers due to occupational exposure.
SO - Int J Cancer; VOL 33, ISS 2, 1984, P231-7
LA - Eng
CD - IJCNA
IS - 0020-7136
AB - The proportions of male lung cancers due to occupational exposure and, respectively, to cigarette smoking in a highly industrialized area of Northern Italy were estimated in a population-based case-control study in 1976-9. Two hundred and four out of the 211 lung cancer cases and 351 controls sampled from the source population were questioned about their occupational and smoking histories. On the basis of the occupational history each subject was classified as probably exposed (+), possibly exposed (?), or unexposed (-) to one or more of the chemicals known to be carcinogenic for the human lung, namely asbestos, polycyclic aromatic hydrocarbons, arsenic, nickel and chromium compounds, BCME, CMME and vinyl chloride. Upon stratification by cigarette smoking, contrasting the occupationally exposed subjects, whether certainly or uncertainly defined, with the unexposed ones, the RR for lung cancer was 2.1 and the occupational etiologic fraction was 0.33 (95% confidence interval 0.19-0.47). The tobacco etiologic fraction was 0.81, while the two exposures together accounted for 89% of the total burden of incident cases. If 33% of all male lung cancers were of occupational aetiology, then this alone would represent 5% of all cancer deaths.
KW - TOXBIB ; Aged ; Air Pollutants, Occupational * ; Female ; Human
KW - Italy ; Lung Neoplasms ETIOLOGY/*OCCURRENCE ; Male ; Middle Age
KW - Occupational Diseases ETIOLOGY/*OCCURRENCE ; Smoking ; Statistics
KW - Support, Non-U.S. Gov't ; Tobacco Smoke Pollution
EM - 8404

215 SI - CIS/84/00838
CC - 130
AU - Penrn JH
TI - Teratogens and the male - An analysis with special reference to herbicide exposure
SO - Medical Journal of Australia, 9 July 1983, Vol.2, No.1, p.16-20. 44 ref.
PT - JOURNAL ARTICLE
LA - Eng
AB - There are 3 mechanisms by which exposure of the male to toxic substances may cause poor reproductive performance or congenital malformations in his offspring: a direct effect on pituitary-hypothalamic function or male sex hormones; a direct effect on the sperm itself; abnormalities in seminal fluid with secondary abnormalities due to dissolved toxins. Experimental studies with 7 drugs and 5 groups of toxic chemicals are

independent risk factor contributing to IHD development.
RN - 9002-86-2
EM - 8307

209 SI - CIS/81/01410
CC - 130
AU - Richards RJ ; Rose FA ; Tetley TD ; Cobb LM ; Hardy CJ
TI - Effects in the rat of inhaling PVC dust at the nuisance dust level (10mg/m(3)).
SO - Archives of Environmental Health Jan.-Feb. 1981, Vol.36, No.1, p.14-19. Illus. 13 ref.
PT - JOURNAL ARTICLE
LA - Eng
AB - A small number of scattered lung lesions were detected in rats after 15 weeks exposure to polyvinyl chloride (PVC) dust at a concentration of 10mg/m(3) for 6h/day and 5 days/week. The lesions remained 15 weeks after exposure to PVC dust had ceased. Few biochemical changes were detected at the alveolar surface in lung tissue or in other organs in PVC-exposed rats. At the nuisance dust level PVC exhibits only weak biological activity.
KW - POLYVINYL CHLORIDE ; BIOLOGICAL EFFECTS ; BIOCHEMISTRY OF THE LUNG
KW - RESPIRABLE DUST ; PLASTICS INDUSTRY ; ANIMAL EXPERIMENTS
KW - BIOCHEMICAL EFFECTS ; ILO
RN - 9002-86-2
EM - 8411

210 SI - NTIS/PB84-182047
AU - Roberts DR
AD - National Inst. for Occupational Safety and Health, Cincinnati, OH. Div. of Surveillance, Hazard Evaluations and Field Studies.
TI - NIOSH-EPA (National Inst. for Occupational Safety and Health/Environmental Protection Agency) Interagency Agreement for the Assessment of Human Health Effects from Exposure to Di-2-(Ethylhexyl) Phthalate (Summary Report),
SO - Govt Reports Announcements & Index (GRA&I), Issue 15, 1984
OO - NTIS/PB84-182047, 17p
PR - NTIS Prices: PC A02/MF A01
AB - TD3: A suitable worker population was sought to conduct a retrospective cohort mortality study for occupational exposure to di-2-(ethylhexyl)phthalate (117817) (DEHP). Companies were contacted regarding annual DEHP consumption or production, types of processes for which DEHP was used, the size of the potentially exposed workforce, and the length of time DEHP had been used. The Society of the Plastics Industry (SPI) stated that the major use of DEHP was as a plasticizer in polyvinyl-chloride (9002862) (PVC) products. The highest potential source of worker exposures was during the formulating and compounding of the plastic resin. Surveys were then conducted of a plastics manufacturer, a PVC plastic sheet processing facility, and two aerosol filter testing facilities. Field monitoring was conducted of worker exposures to DEHP. The authors conclude that the populations exposed to DEHP were too small and not employed long enough to offer a suitable study cohort. Field monitoring showed worker exposures of less

227 SI - TOXBIB/83/200908
AU - Smith TJ ; Cafaralla JJ ; Chelton C ; Crowley S
AD - Department of Environmental Sciences, Harvard School of Public Health, Boston, MA.
TI - Evaluation of emissions from simulated commercial meat wrapping operations using PVC wrap.
SO - Am Ind Hyg Assoc J; VOL 44, ISS 3, 1983, P176-83
LA - Eng
CO - AIHAA
IS - 0002-8894
KW - TOXBIB ; Aerosols ; Air Pollutants *TOXICITY
KW - Air Pollutants, Occupational *TOXICITY ; Heat ; Human
KW - Meat-Packing Industry * ; Polyvinyl Chloride *TOXICITY
KW - Polyvinyls *TOXICITY ; Support, Non-U.S. Gov't
KW - Support, U.S. Gov't, P.H.S.
RN - 9002-86-2
EM - 8307

228 SI - TOXBIB/84/073858
AU - Soutar CA ; Gauld S
AD - Institute of Occupational Medicine, Edinburgh.
TI - Clinical studies of workers exposed to polyvinylchloride dust.
SO - Thorax; VOL 38, ISS 11, 1983, P834-9
LA - Eng
CO - THORA
IS - 0040-6376
AB - A previous study showed that exposure of workers to polyvinylchloride (PVC) dust was associated with the presence of small rounded opacities in the chest radiograph, and also with a small average reduction of the forced expiratory volume in one second (FEV1). Studies have now been carried out on selected men to determine the clinical importance of the presence of small rounded opacities and also to identify any clinical or physiological features associated with PVC dust exposure. Among 28 men with small rounded opacities, complaints of persistent bronchial mucous hypersecretion were more common (nine men) than amont 29 man of similar age, smoking habits, and dust exposures (one man, p less than 0.01), and there was a suggestion that the physical sign of late inspiratory crackles was more frequent among men with opacities (seven of 27 men) than the other men (two of 28 men, p less than 0.05). The average lung function of men with opacities was only trivially lower than that of the comparative group and the difference between the groups was not significant. In further studies 13 non-smokers with the highest PVC dust exposure and lowest FEV1 (adjusted for age, height, weight, and dust exposure) were examined. None had an observed FEV1 less than 80% of the predicted value for age and height, and these men did not differ in symptoms, signs, or lung function from non-smokers with low dust exposure and similarly low FEV1. In a similar study of 18 smokers with the highest PVC dust exposures and lowest adjusted FEV1, some men had an observed FEV1 well below 80% of predicted values for non-smokers, but with one

are small particle powders containing very little free monomer. Bulk PVC resins are similar to suspension PVC resins, though the particles tend to be more porous. Solution PVC resins are smaller in particle size than suspension PVC with high porosity particles containing essentially no free monomer. The variety of PVC resin products does not lend itself to broad generalizations concerning health hazards. In studying occupational hazards the particular PVC process and the product must be considered and identified in the study.

KW - TOXBIB ; Chemical Industry * ; Human ; Particle Size
KW - Polyvinyl Chloride *ADVERSE EFFECTS ; Polyvinyls *ADVERSE EFFECTS
KW - Risk ; Vinyl Chloride ADVERSE EFFECTS
RN - 75-01-4; 9002-86-2
EM - 8206

269 SI - TOXBIB/85/062087
AU - Wilkinson RR
AD - Midwest Research Institute, Kansas City, Missouri.
TI - Technoeconomic and environmental assessment of industrial organotin compounds.
SO - Neurotoxicology (Park Forest Il); VOL 5, ISS 2, 1984, P141-58
LA - Eng
CD - NRTXD
IS - 0161-813X
AB - Current uses of organotins include heat stabilizers for polyvinyl chloride (PVC), catalysts for polyurethane foam and silicone rubber, biocides, and animal health products. Domestic production consumption in 1982 is about 28 million pounds, and overall growth is estimated at 7 percent per year. Physical properties of organotins, including solubility in water, octanol-water partition coefficients, and Freundlich adsorption isotherm constants, are not well characterized. Analytical methods for tin in environmental and biological matrices involve concentration, separation, and identification by chromatography, spectrometry, and spectroscopy. Environmental fate and effects of organotins are not well understood. Degradation reactions may yield a complex set of products, including inorganic tin oxide. The effects of exposure of workers and release of organotins to the environment at point sources have been documented. Nonpoint sources of environmental exposure include discard and sanitary landfill disposal of plastics and direct release of biocides to aquatic or marine environments. Other dissipative uses of organotins which pose potential human risk include PVC food wrapping and bottles and rigid potable water pipe. The long term health effects of low level exposure to organotins are not known. Toxic metal cycling in the environment, including biomethylation of inorganic tin by naturally occurring bacteria, is of rising concern.
KW - TOXBIB ; Chemistry ; Chromatography, Gas ; Economics
KW - Environmental Exposure ; Environmental Pollution ; Human
KW - Kinetics ; Occupational Diseases CHEMICALLY INDUCED
KW - Organotin Compounds */ANALYSIS/POISONING ; Refuse Disposal
KW - Support, U.S. Gov't, Non-P.H.S.