

occurrence of heat stress and man's physiological reactions to it in terms of thermo-regulatory mechanisms and acclimatization, consideration is given to the physical factors governing the rate of heat exchange between man and his environment. This leads to a description of the various indices of heat stress and an evaluation of their usefulness in given circumstances. Limiting conditions for various occupations on three criteria—intolerable, just tolerable, and easily tolerable—are developed. The final chapter discusses ways of controlling the hazard and reducing the level of stress by such means as shielding, insulation, and ventilated clothing. Next follow five chapters devoted to disorders due to excessive exposure to heat. These are considered in four groups—heat syncope, disorders of water and electrolyte balance, disorders with skin lesions, heat stroke and heat hyperpyrexia. For each group the etiology, pathogenesis, diagnosis, and treatment are clearly described. The final chapter in the book was contributed by Dr. R. D. Pepler and considers the psychological effects of heat. It is shown that both short-term and prolonged exposure to heat result in a deterioration in the performance of certain skilled tasks; it is claimed that there is no evidence for any true neurotic reaction to prolonged exposure to heat.

-- Cond. from the review

- 15 Industrial Toxicology and Dermatology in the Production and Processing of Plastics. K. E. Malten and R. L. Zielhuis. Reviewed by D. Malcolm. *Brit. J. Ind. Med.* 21, 325-326 (Oct. 1964). Elsevier, Barking. 258 pp. (1964) 50 shillings.

This new volume of the Elsevier Monographs is a comprehensive review of the up-to-date literature on the toxicology and dermatology of the production and processing of plastics. The book begins with a chapter on the chemical composition of plastics and their biological activity; it then explains the classification into thermo-plastic and thermo-setting resins. The third chapter deals with the nature and function of auxiliary substances such as plasticizers, accelerators, and antioxidants. This is followed by a chapter on the skin effects of plastic raw materials. A description of patch testing for allergy is given, also a warning against interpreting as positive, reactions which are due to the primary irritation effects of the substance. At the end of the book is a long list of recommended concentrations of potential allergens in suitable solvents for patch testing. Various plastics are described, dealing with the industrial toxicology and skin hazards and ending with a well classified survey of auxiliary substances, and the toxicology of those substances likely to be a risk to health. This book, which is a translation from the Dutch, critically reviews and brings together in an easily readable form a large amount of information, which will be invaluable to doctors, chemists, and those in charge of plastics manufacture.

-- Cond. from the review

- 16 Manual of Hazardous Chemical Reactions. NFPA No. 491 M. National Fire Protection Association. Available From: National Fire Protection Association, 60 Batterymarch Street, Boston, Mass. 02110. 112 pp. (1964). Price: \$1.25.

This publication is a compilation of chemical reactions which have been reported to have the potential of causing fires, explosions or detonations at ordinary or slightly elevated temperatures. Each reaction is reported under the name of one of the reactants and cross-referenced under the others. This guide, the first of its kind, was prepared by the NFPA Sectional Committee on Hazardous Chemical Reactions and approved by the NFPA Committee on Chemicals and Explosives.

- 17 Flash Point Index of Trade Name Liquids. NFPA No. 325 A. National Fire Protection Association. Available From: National Fire Protection Association, 60 Batterymarch Street, Boston, Mass. 02110. 224 pp. (1964). Price: \$2.00

This 224-page guide provides basic data about more than 6,300 flammable liquid products, arranged alphabetically by trade names. The flash point, principal uses and manufacturer of each product are listed. The new edition, the sixth since the guide was first published in 1954, contains approximately 2,600 additions and changes since the 1962 edition.

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