

Home Page

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Subject

Hazardous substances—Guidebooks;
Occupational diseases -- Prevention – Guidebooks.

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English

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National Institute for Occupational Safety and Health Office of the Director

Brief History

In 1974, National Institute for Occupational Safety and Health (NIOSH) which is responsible for recommending health and safety standards joined Occupational Safety and Health Administration (OSHA), whose jurisdictions include promulgation and

enforcement activities in developing a series of occupational health standards for substances with existing PELs. This joint effort was labeled the Standards Completion Program and involved the cooperative efforts of several contractors and personnel from various divisions within NIOSH and OSHA. The Standards Completion Program developed 380 substance-specific draft standards with supporting documentation that contained technical information and recommendations needed for the promulgation of new occupational health regulations. NIOSH Pocket Guide to Chemical Hazards was developed in 1978 to make the technical information in those draft standards more conveniently available to workers, employers, and occupational health professionals. The *Pocket Guide* is updated periodically to reflect new data regarding the toxicity of various substances and any changes in exposure standards or recommendations. The data of this pocket guide were collected from a variety of sources, including NIOSH policy documents such as criteria documents and Current Intelligence Bulletins (CIBs), and recognized references in the fields of industrial hygiene, occupational medicine, toxicology, and analytical chemistry.

Scope and Coverage

The NIOSH Pocket Guide to Chemical Hazards (NPG) is intended as a source of general industrial hygiene information on several hundred chemicals/classes for workers, employers, and occupational health professionals. The NPG does not contain an analysis of all pertinent data; rather it presents key information and data in abbreviated or tabular form for chemicals or substance groupings (e.g. cyanides, fluorides, manganese compounds) that are found in the work environment. The information found in the NPG should help users recognize and control occupational chemical hazards. The purpose of the guide book is to assess the safety and health problems associated with a given agent or hazard (e.g., the potential for injury or for carcinogenic, mutagenic, or teratogenic effects) and to recommend appropriate control and surveillance methods. The *Pocket Guide* presents key information and data in abbreviated tabular form for 677 chemicals or substance groupings (e.g., manganese compounds, tellurium compounds, inorganic tin compounds, etc.) that are found in the work environment. The chemicals or substances contained in this revision include all substances for which the National Institute for Occupational Safety and Health (NIOSH) has recommended exposure limits (RELs) and those with permissible exposure limits (PELs) as found in the Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000).

Kind of Information

The Pocket Guide has been designed to provide chemical-specific data to supplement general industrial hygiene knowledge. Individual tables for each chemical present this data in the Chemical Listing section (page 1). To maximize the amount of data provided in the limited space in these tables, abbreviations and codes have been used extensively. These abbreviations and codes, which have been designed to permit rapid comprehension by the regular user, are discussed for each field in these chemical tables in the following subsections:

Chemical Name: The chemical name is listed in the blue box in the top left portion of each chemical table. This name is referred to as the “primary name” in the Chemical,

Synonym, and Trade Name Index.

Structure/Formula: The chemical structure or formula is listed in the field to the right of the chemical name in each chemical table.

CAS Number: This section lists the Chemical Abstracts Service (CAS) registry number.

RTECS Number: This section lists the NIOSH Registry of Toxic Effects of Chemical Substances (RTECS®) number,

IDLH: This section lists the immediately dangerous to life or health concentrations

Conversion Factors: This section lists factors for the conversion of ppm (parts of vapor or gas per million parts of contaminated air by volume)

Synonyms and Trade Names: This section lists the U.S. Department of Transportation (DOT) Identification numbers and the corresponding Guide numbers.

Measurement Methods: The section provides a source (NIOSH or OSHA) and the corresponding method number for measurement methods which can be used to determine the exposure for the chemical or substance.

Physical Description: A brief description of the appearance and odor of each substance is provided in the physical description section.

Personal Protection and Sanitation: This section presents a summary of recommended practices for each substance. These recommendations supplement general work practices (e.g., no eating, drinking, or smoking where chemicals are used) and should be followed if additional controls are needed after using all feasible process, equipment, and task controls.

Special Features

- Along with the pocket guide NIOSH also provides Index of Centers for Disease Control and Prevention.
- NIOSH data and statistics gateway which has been developed to provide centralized access to NIOSH data also is provided. It can be used to find available NIOSH data and statistics and resources in a variety of forms.

Arrangement Pattern

The *Pocket Guide* has been designed to provide chemical-specific data to supplement general industrial hygiene knowledge. To maximize the amount of data provided in this limited space, abbreviations and codes have been used extensively. These abbreviations and codes, which have been designed to permit rapid comprehension by the regular user. The chemical name found in the OSHA General Industry Air Contaminants Standard (29 CFR 1910.1000) is listed in the top left portion of each chemical table.

Remarks

This guide book provides ready to use information for the engineers and is very much useful tool for ready reference in the field work. The guide book along with the NIOSH data and statistics gateway makes a compendium of knowledge. The industrial hygiene information found in the *Pocket Guide* should help users recognize and control occupational chemical hazards.

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