

Chapter 1 : Help Us Redesign the NIOSH Pocket Guide || Blogs | CDC

The NIOSH Pocket Guide to Chemical Hazards (NPG) informs workers, employers, and occupational health professionals about workplace chemicals and their hazards. The NPG gives general industrial hygiene information for hundreds of chemicals/classes.

The Pocket Guide presents key information and data in abbreviated tabular form for chemicals or substance groupings. The industrial hygiene information found in the Pocket Guide should help users recognize and control occupational chemical hazards. Background In , NIOSH which is responsible for recommending health and safety standards joined OSHA whose jurisdictions include promulgation and enforcement activities in developing a series of occupational health standards for substances with existing PELs. The Standards Completion Program developed substance-specific draft standards with supporting documentation that contained technical information and recommendations needed for the promulgation of new occupational health regulations. The Pocket Guide was developed 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. Data Collection and Application The data 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. NIOSH also recommends appropriate preventive measures to reduce or eliminate the adverse health and safety effects of these hazards. To formulate these recommendations, NIOSH evaluates all known and available medical, biological, engineering, chemical, trade, and other information relevant to the hazard. NIOSH recommendations are published in a variety of documents. Criteria documents recommend workplace exposure limits and appropriate preventive measures to reduce or eliminate adverse health effects and accidental injuries. Current Intelligence Bulletins CIBs are issued to disseminate new scientific information about occupational hazards. A CIB may draw attention to a formerly unrecognized hazard, report new data on a known hazard, or present information on hazard control. Alerts, Special Hazard Reviews, Occupational Hazard Assessments, and Technical Guidelines support and complement the other standards development activities of the Institute. Their purpose is to assess the safety and health problems associated with a given agent or hazard. Although these documents are not intended to supplant the more comprehensive criteria documents, they are prepared to assist OSHA and MSHA in the formulation of regulations. 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, are discussed for each column in the following subsections. The chemical formula is also provided under the chemical name. Department of Transportation DOT identification number and the corresponding guide number. Their format is xxxx xxx. The Identification number xxxx indicates that the chemical is regulated by DOT. Department of Transportation, Washington, D. Synonyms, Trade Names, and Conversion Factors Common synonyms and trade names are listed alphabetically for each chemical. Unless noted otherwise, RELs are time-weighted average TWA concentrations for up to a hour workday during a hour workweek. A ceiling REL is designated by "C" preceding the value; unless noted otherwise, the ceiling value should not be exceeded at any time. Any substance that NIOSH considers to be a potential occupational carcinogen is designated by the notation "Ca" see Appendix A , which contains a brief discussion of potential occupational carcinogens. The appeals court also vacated new PELs for substances that were not previously regulated. OSHA ceiling concentrations designated by "C" preceding the value must not be exceeded during any part of the workday; if instantaneous monitoring is not feasible, the ceiling must be assessed as a minute TWA exposure. In addition, there are a number of substances from Table Z-2. For example, a "5-minute maximum peak in any 2 hours" means that a 5-minute exposure above the ceiling value, but never above the maximum peak, is allowed in any 2 hours during an 8-hour workday. The "[skin]" designation indicates the potential for dermal absorption; skin exposure should be prevented as necessary

through the use of good work practices and gloves, coveralls, goggles, and other appropriate equipment. The "total" designation indicates that the REL or PEL listed is for "total particulate" versus the "resp" designation which refers to the "respirable fraction" of the airborne particulate. Appendix C contains more detailed discussions of the specific exposure limits for certain low-molecular-weight aldehydes, asbestos, various dyes benzidine-, o-tolidine-, and o-dianisidine-based, carbon black, the various chromium compounds chromic acid and chromates, chromium II and chromium III compounds, and chromium metal, coal tar pitch volatiles, coke oven emissions, cotton dust, lead, NIA Catalyst ESN, trichloroethylene, and tungsten carbide cemented. As a consequence of the IDLH changes, many of the respirator recommendations for these substances were also revised. These "interim" criteria form a tiered approach with acute human toxicity data being used preferentially, followed next by acute animal inhalation toxicity data, and then finally by acute animal oral toxicity data to determine an updated IDLH value. When relevant acute toxicity data were insufficient or unavailable, the use of chronic toxicity data or an analogy to a chemically similar substance was considered. The purpose for establishing an IDLH value in the Standards Completion Program was to ensure that a worker could escape without injury or irreversible health effects from an IDLH exposure in the event of the failure of respiratory protection equipment. The IDLH was considered a maximum concentration above which only a highly reliable breathing apparatus providing maximum worker protection was permitted. In determining IDLH values, the ability of a worker to escape without loss of life or irreversible health effects was considered along with severe eye or respiratory irritation and other deleterious effects. As a safety margin, the Standards Completion Program IDLH values were based on the effects that might occur as a consequence of a minute exposure. PB is a condition "that poses a threat of exposure to airborne contaminants when that exposure is likely to cause death or immediate or delayed permanent adverse health effects or prevent escape from such an environment. IDLH values are listed for over substances. The notation "Ca" appears in this column for all substances that NIOSH considers to be potential occupational carcinogens. However, IDLH values that were originally determined in the Standards Completion Program or were recently revised are shown in brackets following the "Ca" designations. Physical Description This entry provides a brief description of the appearance and odor of each substance. Notations are made as to whether a substance can be shipped as a liquefied compressed gas or whether it has major use as a pesticide. Chemical and Physical Properties The following abbreviations are used for the chemical and physical properties given for each substance.

Chapter 2 : CDC - NIOSH Pocket Guide to Chemical Hazards (NPG) Appendix A

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of good work practices, gloves, coveralls, goggles, and other appropriate equipment. The "total" designation indicates that the REL or PEL listed is for "total particulate" versus the "resp" designation which refers to the "respirable fraction" of the airborne particulate. Appendix D contains a brief discussion of substances included in the Pocket Guide with no established RELs at this time. These "interim" criteria formed a tiered approach, preferentially using acute human toxicity data, followed by acute animal inhalation toxicity data, and then by acute animal oral toxicity data to determine a preliminary updated IDLH value. When relevant acute toxicity data were insufficient or unavailable, NIOSH also considered using chronic toxicity data or an analogy to a chemically similar substance. The purpose for establishing an IDLH value in the Standards Completion Program was to determine the airborne concentration from which a worker could escape without injury or irreversible health effects from an IDLH exposure in the event of the failure of respiratory protection equipment. The IDLH was considered a maximum concentration above which only a highly reliable breathing apparatus providing maximum worker protection should be permitted. In determining IDLH values, NIOSH considered the ability of a worker to escape without loss of life or irreversible health effects along with certain transient effects, such as severe eye or respiratory irritation, disorientation, and incoordination, which could prevent escape. As a safety margin, IDLH values are based on effects that might occur as a consequence of a minute exposure. NIOSH Respirator Selection Logic defines IDLH exposure conditions as "conditions that pose an immediate threat to life or health, or conditions that pose an immediate threat of severe exposure to contaminants, such as radioactive materials, which are likely to have adverse cumulative or delayed effects on health. However, IDLH values that were originally determined in the Standards Completion Program or were subsequently revised are shown in brackets following the "Ca" designations. Physical Description This entry provides a brief description of the appearance and odor of each substance. Notations are made as to whether a substance can be shipped as a liquefied compressed gas or whether it has major use as a pesticide. Chemical and Physical Properties The following abbreviations are used for the chemical and physical properties given for each substance.

Chapter 3 : New Environment Inc. - Supplemental Student Material

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"5-minute maximum peak in any 2 hours" means that a 5-minute exposure above the ceiling value, but never above the maximum peak, is allowed in any 2 hours during an 8-hour workday. The "[skin]" designation indicates the potential for dermal absorption; skin exposure should be prevented as necessary through the use of good work practices, gloves, coveralls, goggles, and other appropriate equipment. The "total" designation indicates that the REL or PEL listed is for "total particulate" versus the "resp" designation which refers to the "respirable fraction" of the airborne particulate. Appendix D contains a brief discussion of substances included in the Pocket Guide with no established RELs at this time. These criteria formed a tiered approach, preferentially using acute human toxicity data, followed by acute animal inhalation toxicity data, and then by acute animal oral toxicity data to determine a preliminary updated IDLH value. When relevant acute toxicity data were insufficient or unavailable, NIOSH also considered using chronic toxicity data or an analogy to a chemically similar substance. The purpose for establishing an IDLH value in the Standards Completion Program was to determine the airborne concentration from which a worker could escape without injury or irreversible health effects from an IDLH exposure in the event of the failure of respiratory protection equipment. The IDLH was considered a maximum concentration above which only a highly reliable breathing apparatus providing maximum worker protection should be permitted. In determining IDLH values, NIOSH considered the ability of a worker to escape without loss of life or irreversible health effects along with certain transient effects, such as severe eye or respiratory irritation, disorientation, and incoordination, which could prevent escape. As a safety margin, IDLH values are based on effects that might occur as a consequence of a minute exposure. NIOSH Respirator Selection Logic defines IDLH exposure conditions as "conditions that pose an immediate threat to life or health, or conditions that pose an immediate threat of severe exposure to contaminants, such as radioactive materials, which are likely to have adverse cumulative or delayed effects on health. However, IDLH values that were originally determined in the Standards Completion Program or were subsequently revised are shown in brackets following the "Ca" designations. Physical Description This entry provides a brief description of the appearance and odor of each substance. Notations are made as to whether a substance can be shipped as a liquefied compressed gas or whether it has major use as a pesticide. Chemical and Physical Properties The following abbreviations are used for the chemical and physical properties given for each substance.

Chapter 4 : NIOSH / Pocket Guide to Chemical Hazards

E-Training's NIOSH Guide to Chemical Hazards Course covers a myriad of characteristics, responsibilities, and definitions pertaining to the National Institute for Occupational Safety and Health.

Chapter 5 : CDC - NIOSH Pocket Guide to Chemical Hazards (NPG)

Physical Description Colorless liquid or crystals with a sour, vinegar-like odor. [Note: Pure compound is a solid below 62°F. Often used in an aqueous solution.]

Chapter 6 : CDC - NIOSH - Mobile Pocket Guide to Chemical Hazards (NPG)

The industrial hygiene information found in the Pocket Guide assists users to recognize and control occupational chemical hazards. The chemicals or substances contained in this revision include all substances for which NIOSH has recommended exposure limits (RELs) and those with permissible exposure limits (PELs) as found in the OSHA.

Chapter 7 : CDC - NIOSH Pocket Guide to Chemical Hazards (NPG) Search

The information in the Pocket Guide is taken from the NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards; NIOSH criteria documents and Current Intelligence Bulletins; and recognized references in the fields of industrial hygiene, occupational medicine, toxicology, and analytical chemistry.

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Chapter 8 : CDC - NIOSH Pocket Guide to Chemical Hazards (NPG) Introduction

Quick Guide; iOS - Add bookmark/homescreen; Android - Add bookmark/homescreen.

Chapter 9 : New Environment Inc. - NIOSH Pocket Guide

Understanding the NIOSH Pocket Guide to Chemical Hazards The June page NIOSH Pocket Guide containing chemicals, forty pages of introduction, Appendices A-G, and two indices has a green cover that.