

Terminology Services - Vocabulary Catalog List Detail Report

Term
<p>Acute Exposure</p> <p>Definition: One dose (or exposure) or multiple doses (or exposures) occurring within a short time relative to the life of a person or other organism (e.g., approximately 24 hours or less for humans).</p>
<p>Ambient measurement</p> <p>Definition: A measurement (usually of the concentration of a chemical or pollutant) taken in an ambient medium, normally with the intent of relating the measured value to the exposure of an organism that contacts that medium.</p>
<p>Area Source</p> <p>Definition: In the context of the Clean Air Act, air toxics provisions, any stationary source that falls below a major source threshold of emissions (see Major Source definition below), such as a dry cleaner or gas station. The term generally excludes motor vehicles (both road and non-road).</p>
<p>Background Levels</p> <p>Definition: Two types of background levels may exist for chemical substances:. (a) Naturally occurring levels: Ambient concentrations of substances present in the environment, without human influence; (b) Anthropogenic levels: Concentrations of substances present in the environment due to human-made, non-site sources (e.g., automobiles, industries). [IRIS, 1999: Glossary of IRIS Terms]</p>
<p>Cancer</p> <p>Definition: A disease of heritable, somatic mutations affecting cell growth and differentiation, characterized by abnormal, uncontrolled growth of cells.</p>

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<p>Cancer Slope Factor</p> <p>Definition: An upper bound, approximating a 95% confidence limit, on the increased cancer risk from a lifetime exposure to an agent. This estimate, usually expressed in units of proportion (of a population) affected per mg/kg/day, is generally reserved for use in the low-dose region of the dose-response relationship, that is, for exposures corresponding to risks less than 1 in 100.</p> <p>Acronym: CSF</p>
<p>Chemical Abstracts Service Registry Number</p> <p>Definition: A unique, chemical-specific number used in identifying a substance. The registry numbers are assigned by the Chemical Abstract Service, a division of the American Chemical Society.</p> <p>Acronym: CAS No.</p>
<p>Chronic Exposure</p> <p>Definition: Multiple exposures occurring over an extended period of time, or a significant fraction of the animal's or the individual's lifetime.</p>
<p>Dose-response assessment</p> <p>Definition: A determination of the relationship between the magnitude of an administered, applied, or internal dose and a specific biological response. Response can be expressed as measured or observed incidence, percent response in groups of subjects (or populations), or as the probability of occurrence within a population. [IRIS, 1999: Glossary of IRIS Terms]</p>
<p>Ecological Risk Assessment</p>

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<p>Definition: A process that evaluates the likelihood that adverse ecological effects may occur or are occurring as a result of exposure to one or more stressors. Stressors are defined as any chemical, biological, or physical entity that can induce an adverse response on ecological individuals, populations, communities, or ecosystems.</p>
<p>Exposure</p> <p>Definition: Contact made between a chemical, physical, or biological agent and the outer boundary of an organism. Exposure is quantified as the amount of an agent available at the exchange boundaries of the organism (e.g., skin, lungs, gut).</p>
<p>Exposure Assessment</p> <p>Definition: An identification and evaluation of the human population exposed to a toxic agent, describing its composition and size, as well as the type, magnitude, frequency, route and duration of exposure.</p>
<p>Human Health Inhalation Assessment</p> <p>Definition: A process that evaluates the likelihood of an adverse impact of a chemical or group of chemicals on human health for people that are exposed through the inhalation of the chemical(s). Inhalation can be defined as drawing of air (and pollutants) into the lungs via the nasal or oral respiratory passages.</p>
<p>Human Health Multi-pathway Assessment</p> <p>Definition: A process that evaluates the likelihood of an adverse impact of a chemical or group of chemicals on human health for people that are exposed through multiple exposure pathways. These pathways could include inhaling the chemical(s), eating food that the chemical(s) has deposited on, accidentally eating dirt or dust that contains the chemical(s), or skin contact with dirt or water that contains the chemical(s).</p>

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Individual Exposure or Risk Assessment
Definition: A process that evaluates the likelihood of an adverse impact on human health (risk), or amount of exposure, of a chemical or group of chemicals for an actual or hypothetical person.
Major Source
Definition: In the context of the Clean Air Act, air toxics provisions, any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. (Section 112(a)(1))
Particulate Matter
Definition: Solid or liquid matter that is dispersed in a gas, or insoluble solid matter dispersed in a liquid, that gives a heterogeneous mixture.
Pollutant Ranking Assessment
Definition: An assessment used to rank chemicals with respect to their impact on human health and the environment. Often used to select a subset of most important chemicals to focus further risk assessments on. For example, the 33 air toxics highlighted as priority pollutants in EPA's Urban Strategy were selected based on a number of factors, including toxicity-weighted emissions, monitoring data, past air quality modeling analysis, and a review of existing risk assessment literature.
Population Exposure or Risk Assessment

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<p>Definition: A process that evaluates the likelihood of an adverse impact on human health (risk), or amount of exposure, of a chemical or group of chemicals for groups of actual or hypothetical people. For cancer causing chemicals, population risk can be expressed as the number of people estimated to be exposed to specific risk levels or as the number of excess cancer cases expected to occur.</p>
<p>Receptor</p> <p>Definition: The entity which is exposed to the stressor. [USEPA, 1997: Guidance on Cumulative Risk Assessment, Planning and Scoping]</p>
<p>Reference Concentration</p> <p>Definition: An estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from a no-observed-adverse-effect level (NOAEL), lowest-observed adverse-effect level (LOAEL), or benchmark concentration, with uncertainty factors generally applied to reflect limitations of the data used. Generally used in EPA's noncancer human health risk assessments.</p> <p>Acronym: RfC</p>
<p>Reference Dose</p> <p>Definition: An estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral dose exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from a NOAEL, LOAEL, or benchmark dose, with uncertainty factors generally applied to reflect limitations of the data used. Generally used in EPA's noncancer human health risk assessments.</p> <p>Acronym: RfD</p>

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<p>Risk</p> <p>Definition: In the context of human health, the probability of injury, disease, or death from exposure to a chemical agent or a mixture of chemicals. In quantitative terms, risk is expressed as values ranging from zero (representing the certainty that harm will not occur) to one (representing the certainty that harm will occur).</p>
<p>Risk Assessment</p> <p>Definition: In the context of human health, the determination of potential adverse health effects from exposure to chemicals, including both quantitative and qualitative expressions of risk. The process of risk assessment involves four major steps: hazard identification, dose-response assessment, exposure assessment, and risk characterization.</p>
<p>Risk-based Concentrations</p> <p>Definition: An estimate of a health-based air concentration of a chemical that a person or ecosystem could be exposed to that would not result in a risk of cancer or other adverse health effects above a specified level of concern. The risk-based concentration is developed from toxicological dose response values (for human health, usually selecting the most protective of both cancer toxicological dose response values and noncancer toxicological dose response values) and assumptions about exposure rates. It is a tool used to identify which chemicals may pose a threat to human or ecological receptors without conducting an exposure or risk assessment.</p> <p>Acronym: RBCs</p>
<p>Risk-based Doses</p> <p>Definition: An estimate of a health-based, media-specific concentration (e.g., soil or water) of a chemical that a person or ecosystem</p>

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<p>could be exposed to that would not result in a risk of cancer or other adverse health effects above a specified level of concern. The risk-based dose is developed from toxicological dose response values (for human health, usually selecting the most protective of both cancer toxicological dose response values and noncancer toxicological dose response values) and assumptions about exposure rates. It is a tool used to identify which chemicals may pose a threat to human or ecological receptors without conducting an exposure or risk assessment.</p> <p>Acronym: RBDs</p>
<p>Risk Characterization</p> <p>Definition: The final, summarizing step of a risk assessment. The risk characterization integrates information from the proceeding components of the risk assessment and synthesizes an overall conclusion about risk that is complete, informative, and useful for decision makers. It conveys the risk assessor's judgment as to the nature and existence of (or lack of) human health or ecological risks.</p>
<p>Risk Management</p> <p>Definition: In the context of human health, a decision making process that accounts for political, social, economic and engineering implications together with risk-related information in order to develop, analyze and compare management options and select the appropriate managerial response to a potential chronic health hazard.</p>
<p>Stationary Source</p> <p>Definition: Any building, structure, facility, or installation which emits or may emit any air pollutant.</p>
<p>Stressors</p>

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Definition: Physical, chemical, or biological entities that can induce adverse effects on ecosystems or human health. [EPA/OA/Office of Communications, Education, and Media Relations: Terms of Environment: Glossary, Abbreviations, and Acronyms (Revised December 1997)]
Unit Risk Estimate
Definition: The upper-bound excess lifetime cancer risk estimated to result for continuous exposure to an agent at a concentration of 1 Fg/L in water, or 1 Fg/m ³ in air. The interpretation of unit risk would be as follows: if unit risk = 1.5×10^{-6} Fg/L, 1.5 excess tumors are expected to develop per 1,000,000 people if exposed daily for a lifetime to 1 Fg of the chemical in 1 liter of drinking water. Acronym: URE
Unit Risk Factor
Acronym: URF