

# Glossary of Toxics Terminology

A fact sheet from Toxic Free NC

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**Acute toxicity** – Refers to effects that occur immediately after exposure to a toxic substance (hours/days). Usually the term *acute* refers to a short-term and high-dose exposure (see *subchronic* and *chronic* for comparison).

**Antimicrobial** – Any chemical used to kill or prevent microbes (including bacteria, fungi, protozoa, and viruses).

**Carcinogen** (Carcinogenicity, carcinogenic) – Any substance that promotes abnormal cell growth that can lead to cancer.

**CAS number** – (Chemical Abstracts Service number) A specific number assigned to identify a chemical by the American Chemical Society. The numbers have no chemical meaning.

**Chronic toxicity** – Refers to health effects that occur or persist after a long-term repeated exposure to a toxic substance (months or years). Usually this refers to a low-dose exposure (see *acute* and *sub-chronic* toxicity for comparison).

**Cholinesterase inhibition** – A substance that injures living organisms by inhibiting the activity of nerve function (for example, organophosphate and carbamate pesticides are cholinesterase inhibitors).

**Combustible** - Refers to a material that will ignite (catch fire) easily.

**Corrosive** - A substance that causes visible damage to living tissue through a chemical process.

**Developmental** – Usually refers to changes occurring during certain growth process (for example, brain development in a child). Some developmental stages can be very sensitive to environmental exposures.

**Emphysema** – A chronic disease of the lungs that makes breathing difficult.

**Endocrine Disruptor** – Substances that cause the endocrine system (the hormone system) not to function properly. Endocrine disruptors can cause developmental defects, reproductive problems, and certain cancers (see *endocrine system*).

**Endocrine System** – Includes glands and hormones that signal the body in growth, reproduction, and development.

**EPA** – (Environmental Protection Agency) The US government organization charged with protecting the environment and human health through certain regulations. The EPA's Office of Pesticide Programs is in charge of federal pesticide regulation.

**EPA registration number** – Identification number for all registered pesticides; consists of two numbers, the company number and a product number, separated by a dash (-). Sometimes, there is a third set of numbers, which indicates a different distributor.

**Fetus** (fetal) – An unborn human or animal.

**Flammable** – A substance that burns quickly and easily.

**Flash point** – The temperature at which a substance gives off a vapor that can form a flammable mixture with air.

**Fungicide** – Chemicals used to kill or prevent fungi.

**Genotoxic** (genotoxic, genotoxicity) – A substance that causes or induces damage to DNA.

**Herbicide** – Chemical used to kill/prevent plants or weeds.

**IARC** – (International Agency for Research on Cancer) An inter-governmental scientific group that classifies chemicals based on their cancer-causing potential.

**Insecticide** – Chemical used to kill/prevent insects.

**Interaction** – Refers to the way in which a combination of chemicals may increase or decrease the dangers of the chemicals involved.

**LD<sub>50</sub>** – In a toxicology study, this is the level at which a single dose causes death in half of the test animals participating in the study (*acute toxicity* is normally defined by LD<sub>50</sub> values).

**LOEL, LOAEL** (Lowest Observed Effect Level, Lowest Observed Adverse Effect Level) – Lowest dose in a toxicology study at which a toxic or adverse effect was seen.

**Mg/m<sup>3</sup>** – (milligrams per meter cubed) A measure of concentration (weight by volume).

**Miscible** – A liquid or gas that will easily dissolve in another substance.

**Mutagen** (mutagenicity, mutagenic) – A substance that causes damage to DNA, and that can possibly lead to cancer.

**NCDA** – (North Carolina Department of Agriculture) A state agency that is responsible for agriculture and related issues. The NCDA Pesticide Section regulates pesticides in North Carolina.

**Neurotoxin** (neurotoxic) – A substance that affects nerve cells and can produce a variety of symptoms, including headaches, vomiting, shaking or twitching, sweating, emotional and/or behavioral changes, and even death.

**NIOSH** – (National Institute for Occupational Safety and Health) A federal agency that tests equipment, conducts studies of workplace hazards, and proposes safety standards for the workplace.

**NOEL, NOAEL** (No Observed Effect Level, No Observed Adverse Effect Level) – Highest dose in a toxicology study at which no toxic effects were observed (see *LOEL*).

**Paresthesia** – A condition causing ongoing burning or feeling of “pins and needles”. This condition is often caused by heavy metal poisoning (lead, arsenic, etc.).

**Pesticide** - A substance used to kill, prevent, or control living organisms.

**ppm** – (parts per million) Measure of the concentration of a substance by volume.

**Poison** – A toxic substance that can cause death or illness.

**Reactive** – The description of how a substance releases energy under certain conditions (usually in the form of heat).

**Reproduction** (reproductive) – Having to do with creating offspring or children, including organs (e.g. penis) and function (e.g. the ability to become pregnant).

**Respiratory** – The body system involved in breathing (including mouth, nose, lungs, diaphragm).

**Subchronic toxicity** - Refers to toxic effects that occur after repeated exposures (for weeks or months). Usually this term refers to a moderate exposure over a moderate length of time (see *acute* and *chronic* toxicity for comparison).

**Teratogen** (teratogenic, teratogenicity) – Substance that causes defects in the developing embryo or fetus.

**Toxic** – A substance that causes adverse and possibly harmful biological effects (see *LD<sub>50</sub>*).

**Xenobiotic** – A chemical or chemical mixture that is foreign to the body.