

Agrochemical terms:

H

Hazard Communication Standard - An OSHA regulation that requires chemical manufacturers, suppliers, and importers to assess the hazards of the chemicals they make, supply, or import, and to inform employers, customers, and workers of these hazards through a Material Safety Data Sheet.

Hazardous chemical - EPA's designation for any hazardous material that requires a Material Safety Data Sheet. Such substances are capable of producing adverse physical effects (fire, explosion, etc.) or adverse health effects (cancer, dermatitis, etc.)

Hazardous waste - A subset of solid wastes that pose substantial or potential threats to public health or the environment and meet any of the following criteria:

- is specifically listed as a hazardous waste by EPA;
- exhibits one or more of the characteristics of hazardous wastes (ignitability, corrosiveness, reactivity, and/or toxicity);
- is generated by the treatment of hazardous waste; or is contained in a hazardous waste.

Hazardous waste landfill - A specially permitted, excavated or engineered area in which hazardous waste is deposited and covered. Proper protection of the environment from the materials to be deposited in such a landfill requires careful site selection, the cataloging of types of wastes, good design (including a liner and a leachate collection and treatment system), proper operation, and thorough final closure.

Health assessment - An evaluation of available data on existing or potential risks posed by a Superfund site. Every site on the National Priorities List has a health assessment prepared by the Agency for Toxic Substances and Disease Registry.

Heavy metal - A common hazardous waste; can damage organisms at low concentrations and tends to accumulate in the food chain.

Herbicide - A pesticide designed to control or kill plants, weeds, or grasses. Almost 70% of all pesticide used by farmers and ranchers are herbicides. These chemicals have wide-ranging effects on non-target species.

Home and garden user sector (or market) - Involves pesticides applied by homeowners to homes and gardens, including lawns; single and multiple unit housing. Does not include pesticides for home/garden applications by professional applicators.

Household or domestic waste - Solid waste, composed of garbage and rubbish, which normally originates from residential, private households, or apartment buildings. Domestic waste may contain a significant amount of toxic or hazardous waste from improperly discarded pesticides, paints, batteries, and cleaners.

Hydraulic gradient - The direction of ground water flow due to changes in the depth of the water table.

Hydrocarbons - Chemicals that consist entirely of hydrogen and carbon. Hydrocarbons contribute to air pollution problems like smog.

I

Impoundment - A body of water or sludge confined by a dam, dike, floodgate, or other barrier.

Incineration - The destruction of solid, liquid, or gaseous wastes by controlled burning at high temperatures. Hazardous organic compounds are converted to ash, carbon dioxide, and water. Burning destroys organics, reduces the volume of waste, and vaporizes water and other liquids the wastes may contain. The residue ash produced may contain some hazardous material, such as non-combustible heavy metals, concentrated from the original waste.

Incinerator - A furnace for the routine burning of waste materials using controlled flame combustion.

Incompatible waste - A waste unsuitable for mixing with another waste or material because of reactivity hazards.

Index chemical - A chemical used as the point of reference for standardizing the common toxicity of the chemical members of the CAG.

Indoor air - Breathing air inside a habitable structure, often highly polluted because of lack of exchange with fresh oxygen from outdoors. Solvents, smoke, paints, furniture glues, carpet padding, and other synthetic chemicals trapped inside contribute to an often unhealthy environment.

Industrial/commercial/governmental user sector(or market) - Involves pesticides applied by professional applicators (by owner/operators/employees and custom/commercial applicators) to industrial, commercial and governmental facilities,

buildings, sites, and land; plus custom/commercial applications to homes and gardens, including lawns. May also be referred to as "professional market" for pesticides.

Industrial waste - Unwanted materials produced in or eliminated from an industrial operation and categorized under a variety of headings, such as liquid wastes, sludge, solid wastes, and hazardous wastes.

Inert ingredients - Substances that are not "active," such as water, petroleum distillates, talc, corn meal, or soaps. When discussing pesticides, inert ingredients do not attack a particular pest, but some are chemically or biologically active, causing health and environmental problems.

Incidental take - The number of animals that are harmed or killed as a result of pesticide application.

Insecticide - A pesticide compound specifically used to kill or prevent the growth of insects.

Integrated Pest Management (IPM) - The use of pest and environmental information in conjunction with available pest control technologies to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to persons, property and the environment.

Irradiated food - Food that has been briefly exposed to radioactivity (usually gamma rays) to kill insects, bacteria, and mold. Irradiated food can be stored without refrigeration or chemical preservatives and has a long "shelf life."

Irritant - A substance that can cause irritation of the skin, eyes, or respiratory system. An irritant can cause an acute effect from a single high-level exposure, or chronic effects from repeated, low-level exposures. Some examples of irritants are chlorine, nitric acid, and various pesticides.

L

Lagoon - A shallow, artificial treatment pond where sunlight, bacterial action, and oxygen work to purify wastewater; a stabilization pond. An aerated lagoon is a treatment pond that uses oxygen to speed up the natural process of biological decomposition of organic wastes. A lagoon is regulated as a point source under the Clean Water Act if there is a direct surface water discharge. Some lagoons that discharge into ground water also are regulated if they have a direct hydrogeologic connection to surface water. In other areas, lagoons were historically used to dump various liquid, solid, and hazardous wastes from manufacturing or industrial processes. These wastes typically flooded and polluted surrounding environs or seeped underground. Such lagoons are now regulated under RCRA but some must be cleaned up under Superfund.

Landfill - A method for final disposal of solid waste on land. The refuse is spread and compacted and a cover of soil applied so that effects on the environment (including public health and safety) are minimized. Under current regulations, landfills are required to have liners and leachate treatment systems to prevent contamination of ground water and surface waters. An industrial landfill disposes of non-hazardous industrial wastes. A municipal landfill disposes of domestic waste including garbage, paper, etc. This waste may include toxins that are used in the home, such as insect sprays and powders, engine oil, paints, solvents, and weed killers.

Leachate - Liquid (mainly water) that percolates through a landfill and has picked up dissolved, suspended, and/or microbial contaminants from the waste. Leachate can be compared to coffee: water that has percolated down through the ground coffee.

Lethal Concentration 50 (LC 50) - A concentration of a pollutant or effluent at which 50% of the test organisms die; a common measure of acute toxicity.

Lethal Dose 50 (LD 50) - The dose of a toxicant that will kill 50% of test organisms within a designated period of time. The lower the LD 50, the more toxic the compound.

Lowest Observed Adverse Effect Level (LOAEL) - The lowest dose in a toxicity study resulting in adverse health effects.

Manifest system - Tracking of hazardous waste from "cradle to grave" (generation through disposal), with accompanying documents known as "manifests."

Master Record Identification Number (MRID) - A unique cataloging number assigned to an individual pesticide study at the time of its submission to the Agency.

Material Safety Data Sheet (MSDS) - Printed material concerning a hazardous chemical, or Extremely Hazardous Substance, including its physical properties, hazards to personnel, fire and explosion potential, safe handling recommendations, health effects, fire fighting techniques, reactivity, and proper disposal. Originally established for employee safety by OSHA.

Maximum Contaminant Level (MCL) - The maximum level of certain contaminants permitted in drinking water supplied by a public water system as set by EPA under the federal Safe Drinking Water Act.

Maximum Contaminant Level Goal (MCLG) - The maximum level of a contaminant that is associated with no adverse health effects from drinking water containing that contaminant over a lifetime. For chemicals believed to cause cancer, the MCLGs are set at zero. MCLGs are not enforceable, but are ideal, health-based goals which are set in the

National Primary Drinking Water Standards developed by EPA. MCLs are set as close to MCLGs as possible, considering costs and technology.

Mechanisms of toxicity - The biochemical method by which a chemical reacts in a living organism.

Medical waste - All wastes from hospitals, clinics, or other health care facilities ("Red Bag Waste") that contain or have come into contact with diseased tissues or infectious microorganisms. Also referred to as infectious waste which is hazardous waste with infectious characteristics, including: contaminated animal waste, human blood and blood products, pathological waste, and discarded sharps (needles, scalpels, or broken medical instruments).

Microbial pesticides - Microorganisms that kill or inhibit pests, including insects or other microorganisms. Sometimes microorganisms get rid of pests simply by growing larger in numbers, using up the pests' food supply, and invading the pests' environment.

Microorganisms - Bacteria, yeasts, simple fungi, algae, protozoans, and a number of other organisms that are microscopic in size. Most are beneficial but some produce disease. Others are involved in composting and sewage treatment.

Milligrams/liter (mg/l) - A measure of concentration used in the measurement of fluids. Mg/l is the most common way to present a concentration in water and is roughly equivalent to parts per million.

Minimization - Measures or techniques that reduce the amount of wastes generated during industrial production processes; this term also is applied to recycling and other efforts to reduce the volume of waste going to landfills. This term is interchangeable with waste reduction and waste minimization.

Mites - Tiny eight-legged animals that live off plants, animals or stored food.

Miticides - Kill mites that feed on plants and animals

Mitigation - Measures taken to reduce adverse effects on the environment.

Mildews - Thin coatings of powdery fungi that can grow on damp surfaces like bathroom tiles and corners of the bathtub.

Molds - Furry fungi that grow on damp surfaces.

Molluscicides - Kill snails and slugs

Monitoring well - A well used to take water quality samples or to measure ground water levels.

Morbidity - Rate of incidence of disease.

Mortality - Death rate.

Mutagenicity - The property of a chemical that causes the genetic characteristics of an organism to change in such a way that future generations are permanently affected.

N

National Pollutant Discharge Elimination System (NPDES) - The primary permitting program under the Clean Water Act which regulates all discharges to surface water.

National Response Center (NRC) - The primary communications center operated by the U.S. Coast Guard to receive reports of major chemical and oil spills and other hazardous substances into the environment. The NRC immediately relays reports to a predesignated federal On-Scene Coordinator.

Nematicides - Kill nematodes (microscopic, worm-like organisms that feed on plant roots)

Neutralization - The chemical process in which the acidic or basic characteristics of a fluid are changed to those of water (pH = 7).

No Observed Adverse Effect Level (NOAEL) or No Observed Effect Level (NOEL) - A level of exposure which does not cause observable harm.

No Observed Adverse Effect Level (NOAEL) - The highest dose in a toxicity study which does not result in adverse health effects. **Combine with above**

Non-agricultural sectors - General term which refers to a combination of home/garden and industrial/commercial/governmental sectors.

Nonpoint source - Any source of pollution not associated with a distinct discharge point. Includes sources such as rainwater, runoff from agricultural lands, industrial sites, parking lots, and timber operations, as well as escaping gases from pipes and fittings.

Non-target organism - Any organism for which the pesticide was not intended to control.