



Tip Sheet

Material Safety Data Sheets (MSDS) Terms

Active ingredient—the part of a product that actually does what the product is designed to do. It is not necessarily the largest part of the product. For example, an insecticidal spray may contain less than 1% pyrethrin, the ingredient that actively kills insects. The remaining ingredients are often called inert ingredients.

Acute—sudden or brief, used to describe either an exposure or a health effect. An acute exposure is a short-term exposure. Short-term means lasting for minutes, hours, or days. An acute health effect develops either immediately or a short time after an exposure.

Autoignition temperature—the lowest temperature at which materials begin to burn in air in the absence of a spark of flame.

Boiling point—the temperature at which the material changes from a liquid to a gas.

Carcinogen—a substance that can cause cancer. *Carcinogenic* means able to cause cancer. Under the Controlled Products Regulations, materials are identified as carcinogenic if they are recognized as carcinogens by the American Conference of Governmental Industrial Hygienists (ACGIH) or the International Agency for Research on Cancer (IARC). MSDSs from the United States also identify carcinogens recognized by the U.S. National Toxicology Program (NTP).

CAS Registry Number—a number assigned to a material by the Chemical Abstract Service (CAS) to provide a single unique identifier.

Ceiling (C)—the concentration that should not be exceeded at any time (the exposure limit).

Chemical name—the proper scientific name for the principal or active ingredient of the product.

Chronic—long-term or prolonged, describing either an exposure or a health effect. Long-term means lasting for months or years. The Controlled Products Regulations describe technical criteria for identifying materials that cause chronic health effects.

Combustible—able to burn.

Compressed gas—under 29 CFR 1910.1200(c), a gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70°F (21.1°C); a gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130°F (54.4°C) regardless of the pressure at 70°F; or a liquid having a vapor pressure exceeding 40 psi at 100°F (37.8°C) as determined by ASTM D-323-72.

Corrosive material—a material that can attack (corrode) metals on human tissue such as the skin or eyes.

Evaporation rate—a measure of how quickly the material becomes a vapor at normal room temperature. Usually, the evaporation rate is given in comparison to certain chemicals, such as butyl acetate, which evaporates fairly quickly.

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Tip Sheet

Material Safety Data Sheets (MSDS) Terms, continued

Flash point—the lowest temperature at which a liquid or a solid gives enough vapors to form flammable air-vapor mixture near its surface.

Exposure limit—the concentration of a chemical in the workplace to which most people can be exposed without experiencing harmful effects.

Flammable—able to ignite and burn readily.

Incompatible materials—materials that can react with the product or with components of the product and may destroy the structure or function of a product, cause a fire, explosion, or violent reactions, or cause the release of hazardous chemicals.

Ingestion—taking a material into the body by mouth (swallowing).

Inhalation—taking a material into the body by breathing it in.

Melting point—the temperature at which a solid material becomes a liquid. The *freezing point* is the temperature at which a liquid material becomes a solid. Usually one value or the other is given on an MSDS. It is important to know the melting or freezing point for storage and handling purposes.

Oxidizing material—a material that gives up oxygen easily or can readily oxidize other materials.

ppm—parts per million, a common unit of concentration of gases or vapor in air.

Sensitization—the development, over time, of an allergic reaction to a chemical.

STEL—Short-Term Exposure Limit, the average concentration to which workers can be exposed to for a short period (usually 15 minutes) without experiencing irritation, long-term or irreversible tissue damage, or reduced alertness.

Synergism—as used on MSDSs, a term that means the exposure to more than one chemical can result in health effects greater than those expected when the effects of exposure to each chemical are added together. It is like saying $1 + 1 = 3$.

Toxic—able to cause harmful health effects. *Toxicity* is the ability of a substance to cause harmful health effects. Description of toxicity (e.g., low, moderate, severe, etc.) depends on the amount needed to cause an effect or the severity of the effect.

TWA—Time-Weighted Average. Said of exposure limits, the average concentration of a chemical in air for a normal 8-hour workday and 40-hour workweek to which nearly all workers may be exposed day after day without harmful effects.

Vapor density—the mass per unit volume of a pure gas or vapor. On an MSDS, the vapor density is commonly given as a ratio of the density of the gas or vapor to the density of air.

Vapor pressure—the pressure of a vapor when in equilibrium with its liquid or solid form. It is a measure of the tendency of a material to form a vapor.

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