

## EMPLOYEE INFORMATION SHEET

**Common M.S.D.S Terms**

- ACUTE EFFECT** - An adverse effect with severe symptoms occurring very quickly, as a result of a single excessive overexposure to a substance.
- ACUTE TOXICITY** - The adverse effects resulting from a single excessive overexposure to a substance. Usually a figure denoting relative toxicity.
- ASPHYXIANT** - A vapor or gas that can cause unconsciousness or death by suffocation. Most are associated with a lack of sufficient oxygen to promote life.
- BOILING POINT** - A temperature at which a liquid turns to a vapor state. This term is usually associated with the temperature at sea level pressure when a flammable liquid gives off sufficient vapors to promote combustion.
- "C" or CEILING** - In terms of exposure concentrations, this is the number that should never be exceeded even for a short period, for a substance.
- CARCINOGEN** - A substance or agent capable of producing cancer in mammals.
- cc** - cubic centimeter - A volume measurement usually associated with small quantities of a liquid. One quart has 946 cubic centimeters.
- CHRONIC EFFECT** - An adverse effect with symptoms that develop or recur very slowly, or over long periods of time.
- CHRONIC TOXICITY** - The adverse effects resulting from prolonged or repeat exposures to a substance, usually used as an indicator of relative toxicity for exposures over great lengths of time.
- COMBUSTIBLE** - A term used to classify liquids, gases, or solids that will burn readily. This term is often associated with 'flash point', which is a temperature at which a given material will generate sufficient vapors to promote combustion.
- CONCENTRATION** - A figure used to define relative quantity of a particular material. Such as a mixture in air of 5 ppm Acetone in Air.
- CORROSIVE** - A material with the characteristic of causing irreversible harm to human skin, or steel by contact. Many acids are classified as corrosives.
- DECOMPOSITION** - The breakdown of materials or substances into other substances or parts of compounds. Usually associated with heat or chemical reactions.
- DERMAL** - Used on or applied to the skin.
- DERMAL TOXICITY** - The adverse effects resulting from exposure of a material to the skin. Usually associated with lab animal tests.
- EVAPORATION RATE** - The rate at which a liquid material is known to evaporate, usually associated with flammable materials. The faster a material will evaporate, the sooner it will become concentrated in the air, creating either an explosive/combustible mixture or toxic concentration, or both.

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**FLASH POINT** - The temperature at which a liquid will generate sufficient vapors to promote combustion. Generally, the lower the flash point, the the greater the danger of combustion.

**FLAMMABLE** - Any liquid that has a flash point of 100 Degree F. or below. Also, any solid which can sustain fire and ignite readily.

**GENERAL EXHAUST** - A term used to define a system for exhausting or ventilating air from a general work area. Not as site specific as localized exhaust.

'g' - GRAM - A unit of weight. One ounce equals about 28.4 grams.

**HAZARDOUS CHEMICAL** - Any chemical which is either a physical or health hazard or both.

**IGNITABLE** - A term used to define any liquid, gas or solid which has the ability to be 'ignited' which means having a flash point of 140 Degree F., or less.

**INCOMPATIBLE** - Materials which could cause dangerous reactions from direct contact with one another.

**INGESTION** - Taking in of a substance through the mouth.

**INHALATION** - The breathing in of a substance in the form of a gas, liquid, vapor, dust, mist, or fume.

**INHIBITOR** - A chemical added to another substance to prevent an unwanted change from occurring.

**IRRITANT** - A chemical which causes a reversible inflammatory effect on the site of contact, however is not considered a corrosive. Normally, irritants affect the eyes, skin, nose, mouth, respiratory system.

**LC** - Lethal Concentration. In lab animal tests, this is the concentration of a substance which is sufficient to kill the tested animal.

**LC<sub>50</sub>** - Lethal Concentration<sub>50</sub> - In lab animal tests, this is the concentration of a substance required to kill 50% of the group of animals tested.

**LD** - Lethal Dose - The concentration of a substance required to kill the lab animal used for the test with a specific material.

**LD<sub>50</sub>** - Lethal Dose<sub>50</sub> - The single dose concentration of a substance required to kill 50% of the lab animals tested.

**L.E.L.** - Lower Explosive Limit - The lowest concentration, or percentage in air, of a vapor or gas, that will produce a flash fire when an ignition source is introduced.

**LOCAL EXHAUST** - The system for ventilating or exhausting air from a specific area such as in welding operations. More localized than general exhaust.

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**MELTING POINT** - The temperature at which a solid changes to a liquid.

**mg** - MILLIGRAM - A unit of measurement of weight. There are 1000 mg in one gram of a substance.

**mg/m<sup>3</sup>** - MILLIGRAMS PER CUBIC METER - A unit of measurement usually associated with concentrations of dusts, gases, or mists in air.

**mppcf** - MILLION PARTICLES PER CUBIC FOOT - A unit of measure usually used to describe airborne particles of a substance suspended in air.

**MUTAGEN** - A substance or agent capable of altering the genetic material in a living cell. Normally associated with carcinogens.

**NFPA** - National Fire Protection Association - An organization which promotes fire protection/prevention, and establishes safeguards against loss of property and/or life by fire. The NFPA has established a series of codes identifying hazardous materials by symbol and number for fire fighting purposes. These codes also classify materials in their order of flammability, with 0 being not burnable up to 4 which means will burn spontaneously at room temperature.

**OLFACTORY** - Relating to the sense of smell.

**ORAL** - Used in or taken through the mouth into the body.

**ORAL TOXICITY** - A term used to denote the degree at which a substance will cause adverse health effects when taken through the mouth. Normally associated with lab animal tests.

**OXIDIZER** - A substance which yields oxygen readily to stimulate the combustion of an organic material.

**OXIDIZING AGENT** - A chemical or substance which brings on oxidation reactions, by providing the oxygen to promote oxidation.

**PEL** - Permissible Exposure Limit - An exposure concentration established by the Occupational Safety & Health Community which indicates the maximum concentration for which no adverse effects will follow.

**PPM** - Parts Per Million - A unit of measurement for the concentration of a gas or vapor in air. Usually expressed as number of parts per million parts of air.

**PPB** - Parts Per Billion - As above, only expressed as number of parts per billion parts of air.

**REACTIVITY** - The term which describes the tendency of a substance to undergo a chemical change with the release of energy, often as heat.

**REDUCING AGENT** - In an oxidation reaction, this is the material that combines with oxygen.

**RESPIRATORY SYSTEM** - The breathing system, including the lungs, and air passages, plus their associated nervous and circulatory components.

**SENSITIZER** - A substance which on first exposure causes little or no reaction, however, with repeated exposure will induce a marked response not necessarily limited to the exposure site. Usually associated with skin sensitization.

**SPECIFIC GRAVITY** - The weight of a material compared to the weight of an equal volume of water. Usually expresses a materials heaviness. A material with a specific gravity of greater than 1.0 will sink to the bottom of water, whereas a material with a specific gravity of less than 1.0 will float on top of water.

**STEL** - Short Term Exposure Limit - The maximum allowable concentration of a substance that one can be exposed to for less than 15 minutes and not produce adverse health effects.

**TERATOGEN** - A substance or agent, usually associated with cancer, that when exposed to a pregnant female will cause malformation of the fetus. Usually associated with lab animal tests.

**TLV** - Threshold Limit Value - A term used by the Occupational Safety & Health community to describe the airborne concentration of a material to which nearly all persons can be exposed to day in and day out, and not develop adverse health effects.

**TOXICITY** - The sum of adverse effects of exposure to materials, generally by mouth, skin, or respiratory tract.

**TWA** - Time Weighted Average - The airborne concentration of a material to which a person can be exposed over an 8-hour work day. (An average).

**UEL** - Upper Explosive Limit - The highest concentration of a gas or vapor in air that will sustain or support combustion, when an ignition source is present.

**VAPOR DENSITY** - A term used to define the weight of a vapor or gas as compared to the weight of an equal volume of air. Materials lighter than air have a vapor density of less than 1.0, whereas materials heavier than air have a vapor density greater than 1.0.

**VAPOR PRESSURE** - A number used to describe the pressure that a saturated vapor will exert on top of it's own liquid in a closed container. Usually, the higher the vapor pressure, the lower the boiling point, and therefore the more dangerous the material can be, if flammable.