

Glossary of Safety Terms

AABA	Ambient Air Breathing Apparatus.
ACGIH	American Conference of Governmental Industrial Hygienists. An organization that annually determines standards of exposure to toxic and otherwise harmful materials in the workroom air, commonly known as threshold limit value (TLV).
Absorption	The process by which a liquid adheres to the absorbent material but does not penetrate the fibers or particles themselves.
Aerosol	A dispersion of solid or liquid particles in a gaseous medium.
AIHA	American Industrial Hygiene Association.
ANSI	American National Standards Institute. This consensus body consists of volunteer safety professionals who create or revise documents on test requirements, procedural methods, and product specifications. In the realm of safety, ANSI Z87.1 is for safety caps. When a manufacturer meets these specifications, then the forementioned “Z” logos can be placed on the product. There is no verification of the product meeting the standard by ANSI.
APF	Assigned Protection Factor. This is a numerical value assigned to a specific class of respiratory, and represents by increasing value, the relative protection that the type of device affords when its fit is verified by fit testing.
APR	Air-purifying Respirator. This type of respirator uses chemical cartridges and/or filters.
ASTM	American Society for Testing and Materials. A technical organization that develops standards on characteristics and performance of materials, products, systems and services. It is the world’s largest source of voluntary consensus standards.
Attenuation	The reduction in sound pressure level incident upon the ear when hearing protection is worn.
Automatic Darkening Welding Filter	An optical filter that automatically switches from a light state to a dark state (shade) in response to change in incident light intensity.
Breakthrough Time	The time for initial chemical contact to detection.
Carpal Tunnel Syndrome	A common affliction caused by compression of the median nerve in the carpal tunnel. Often associated with tingling, pain or numbness in the thumb and first three fingers.
Ceiling Limit	In threshold limit value (TLV) and permissible exposure limit (PEL), the maximum allowable concentration to which an employee may be exposed.
Ceiling Value, C	The concentration that should not be exceeded during any part of the working exposure. “An employee’s exposure (to a hazardous material) shall at no time exceed the ceiling value” (OSHA).
CFM	Cubic Feet per Minute. This is a measure of airflow.
CFR	The Code of Federal Regulations refers to the Federal laws of the United States.
CIH	Certified Industrial Hygienist.
Class A Fire	Wood, paper cloth, trash or other ordinary materials.
Class B Fire	Gasoline, grease, oil, paint or other flammable liquids.
Class C Fire	Live electrical equipment.
Class D Fire	Flammable metals.
CO	Carbon Monoxide.
CO²	Carbon Dioxide.

Combustible	A term used by the NFPA, DOT and others to classify certain liquids that will burn on a basis of flash points. Both NFPA and DOT generally define combustible liquids as having a flash point of 100° F (38° C) or higher. OSHA defines combustible liquids within the Hazard Communication Law as any liquid having a flash point at or above 100° F (38° C) but below 200° F (93.3° C). Iso, any mixture having components with flash points at 200° F (93.3° C) or higher, the total volumes of which make up 99% or more of the total volume of the mixture.
Corrosive	A substance that causes visible destruction or permanent changes in human skin tissues at the site of contact.
dB	Decibel. A unit for expressing the relative intensity of sounds on a scale from 0 (average least perceptible) to 130 (average pain level). Unit used to express sound power levels. The higher the number, the greater the sound energy.
Degradation	Degradation of glove materials occurs when there is a change in the material's physical or chemical properties as the result of exposure to a chemical or chemical mixture.
Dielectric	A material which is an electrical insulator or in which an electric field can be sustained with a minimum dissipation of power.
Dispense	The final service following eye examination, lens design, frame selection, ordering & verification; fitting fabricated eyewear properly to the face
DOL	The Department of Labor, of which OSHA is a part.
Dusts	Solid particles generated by handling, crushing, grinding, rapid impact, detonation, and decrepitation of organic or inorganic materials such as rock, ore, metal, coal, wood and grain. Dusts do not tend to flocculate, except under electrostatic forces; they do not diffuse in air but settle under the influence of gravity.
Earmuff	A hearing protector usually consisting of a headband and earcups.
Earplug	A hearing protector worn within the external ear canal.
ELSI	End of Service Life Indicator is used on a chemical cartridge to indicate when the cartridge should be discarded and replaced by showing a colorimetric change on the cartridge. This color change takes place before the contaminant breaks through the cartridge.
EPA	The Environmental Protection Agency. This executive agency is responsible for outdoor air and water quality.
Ergonomics	A multi-disciplinary activity dealing with interactions between workers and their total working environment plus stresses related to such environmental elements as atmospheric heat, light and sound, as well as tools and equipment of the workplace.
Explosion Class 1	Flammable gas/vapor.
Explosion Class 2	Combustible dust.
Explosion Class 3	Ignitable fibers.
Explosion Proof	An electrical apparatus so designed that an explosion of flammable gas or vapor inside the enclosure will not ignite flammable gas or vapor outside.
Exposure Level	The level or concentration of a physical or chemical hazard to which an employee is exposed.

Exposure Limits	Concentration of substances (and conditions) under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effects. ACGIH limits are called threshold limit value and OSHA exposed limits are called PEL (permissible exposure limits).
Eye Hazards	Any number of things that can harm an eye including: foreign objects, dust, sparks, chemical liquid and fumes, and harmful rays. May also include tasks or conditions that create eye strain or impair effective vision (excessive VDT use in poor conditions, glare, poor lighting, etc.).
FDA	Food and Drug Administration.
First Responder	The first personnel trained to arrive on the scene of a hazardous material incident, accident, or drowning. Usually officials from local emergency services, firefighters and police.
Flame Arrestor	A mesh or perforated metal insert within a flammable storage can that protects its contents from external flame or ignition.
Flammable	Flash point less than 37.8° C and a vapor pressure of not over 60 psi at 37.8° C.
Flammable Liquid	A liquid with a flash point below 100° F (37.8° C) excluding gases.
Flash Point	The lowest temperature at which a flammable-vapor-air mixture above the liquid will ignite when the ignition source is introduced.
FM	Factory Mutual. A nationally recognized testing laboratory and approval service recognized by OSHA.
Fumes	Particulate matter consisting of the solid particles generated by condensation from the gaseous state, generally after violation from melted substances, and often accompanied by a chemical reaction, such as oxidation.
Gas	A state of matter in which the material has very low density and viscosity; can expand and contract greatly in response to changes in temperature and pressure; easily diffuses into other gases; readily and uniformly distributes itself throughout any container.
Gauntlets	Gauntlets are similar to safety cuffs but extend further down the arm to provide protection to the lower forearm.
Goggles	A device contoured for full facial contact and held in place by a headband or other suitable means, for the protection of the eyes and eye sockets.
H₂S	Hydrogen Sulfide.
Hazardous Waste	Under RCRA, any solid or combination of solid wastes, which because of its physical, chemical or infectious characteristics, may pose a hazard when improperly managed.
Hearing Protector	A device that is worn to reduce the effect of noise on the auditory system.
HEPA	High Efficiency Particulate Air filters are any N100, R100, or P100 filter. They are a minimum of 99.97% efficient against a 0.3-micron size particle.
Impact Resistance	The ability of a protector to resist the force of an object that comes into contact with the lens or eye protector at the velocity specified in this standard.
Intrinsically Safe	Where any spark or thermal effect that may occur in normal use, or under any conditions of fault likely to occur in practice, is incapable of causing an ignition of the prescribed flammable gas, vapor or dust.
Knit Wrist Cuffs	Knit wrist cuffs are designed to hold the glove in place on the hand and to prevent debris from entering the glove.
LCD	Liquid Crystal Display.

LED	Light Emitting Diode.
LEL	Lower Explosive Limit. The minimum percent by volume of a gas which, when mixed with air at NTP, will form a flammable mixture.
Level A Clothing	Should be worn when highest level of respiratory, skin and eye protection is needed.
Level B Clothing	Should be worn when highest level of respiratory protection is needed, but a lesser level of skin protection.
Level C Clothing	Should be worn when the criteria for using air-purifying respirators are met.
Level D Clothing	Should be worn only as a work uniform and not on any site with respiratory or skin hazards.
Local Exhaust Ventilation	A ventilation system that captures and removes the contaminants at the point they are being produced before they escape into the workroom air.
Lower Explosive Limit (LEL)	The lower limit of flammability of gas, vapor, or dust or any combination of these at ambient temperatures. For gases and vapors, this is expressed as a percentage in air by volume. For dusts, this is expressed as weight of dust per volume of air.
Lumbar	The section of the lower vertebral column, immediately above the sacrum. Located in the small of the back and consisting of five large lumbar vertebrae. It is a highly stressed area in work situations and in supporting the body structure.
Mg/M³	Milligram per Cubic Meter.
mil	One mil equals 1/1000 of an inch. Used in reference to glove thickness.
Mist	Liquid particles in a gaseous medium.
MSDS	Material Safety Data Sheet (OSHA Form 20). Contains descriptive information on hazardous chemicals under OSHA's Hazard Communication Standard (HCS). These data sheets also provide precautionary information on the safe handling of the gas as well as emergency and first aid procedures.
Negative Pressure	These respiratory products do not supply oxygen. Do not use when concentrations of contaminants are immediately dangerous to life and health or when the concentrations are not known. Not to be used in atmospheres containing less than 19.5% oxygen.
NFPA	National Fire Protection Association. An organization that promotes knowledge of fire protection methods.
NFPA Hazard Rating	Classification of a chemical by a four-color diamond representing health, flammability, reactivity and specific hazard by a numbered hazard rating from 0 – 4.
NIOSH	National Institute for Occupational Safety and Health. Independent Federal agency charged with performing research on occupational disease and injury. Part of the CDC, is responsible for testing and certifying respiratory protective devices and performing research and consultation used by OSHA, other governmental agencies and employers.
Nitrile rubber	Nitrile rubber is a copolymer of acrylonitrile and butadiene. Nitrile rubber offers excellent physical hazard resistance to punctures, cuts, snags and abrasion. Nitrile rubber has considerable resistance to oils, fuels, and certain organic solvents. It is not flame resistant.
Noise Reduction Rating (NRR)	The difference between the overall C-weighted sound level of a noise spectrum having equal energy per octave and the resulting A-weighted noise levels under a hearing protection device.

NRR	Noise Reduction Rating.
O²	Oxygen.
Odor Threshold	The minimum concentration of a substance at which a majority of test subjects can detect and identify the characteristic odor of a substance.
OSHA	A branch of the Department of Labor (DOL), the Occupational Safety and Health Administration regulates the use of personal protective equipment in the workplace. These regulations cover everything from first-aid kits to hard hats to ladders and fall protection.
Oxygen Deficiency	As defined by the regulatory authority for physiological effects. For certain respirators, refer to the minimum oxygen concentration where such devices may be used.
PAPR	A Powered Air-Purifying Respirator is a positive pressure device that utilizes a blower and battery to force ambient air through cartridges and/or filters to the facepiece or hood.
Particulate	Minute separate particles of various sizes present in air as either dust, fumes, mists, gases or vapors.
PEL	Permissible Exposure Limit is the maximum amount of a toxic substance that a worker can be subjected to, usually as an average exposure of 8 hours (called a Time-weighted Average). The OSHA limit of employee exposure to chemicals; found primarily in 29 CFR 1910.1000.
Permeation Rate	An invisible process by which a hazardous chemical moves through a protective material. Measured in mg/mg ³ /sec.
Plano	Non-prescription, spectacle style, protective eyewear.
Polycarbonate	A highly tensile plastic used in making lenses. Stronger than CR-39 and 20% lighter than plastic.
Polyvinyl Chloride	(PVC) is a synthetic thermoplastic polymer of vinyl chloride. PVC offers good abrasion resistance but may be susceptible to punctures, cuts and snags. PVC is effective against water and most aqueous solutions, detergents and diluted bases and acids. It only has limited chemical resistance to organic solvents. PVC is one of the more common coatings for coated work gloves.
Positive Pressure	Constant flow of clean, filtered air for increased comfort/protection eliminates respiratory fatigue associated with negative pressure respirators. Increases efficiency and output.
PPE	Personal Protective Equipment. Devices worn by the worker to protect against hazards in environment. For example, respirators, gloves and hearing protectors.
ppm	Parts per million, 1×10^6 . A convenient means of expressing very low concentrations of a substance in a mixture, or as a low-level contaminant in a pure product.
Prefilter	A filter used in conjunction with a cartridge on an air-purifying respirator.
Program Administrator	A qualified person who is responsible and accountable for the development, implementation, and administration of the respiratory protection program.
Protection Factor	A quantitative measure of the fit of a particular respirator to a particular individual.
Protective Eyewear	Personal eye protection meeting standards acceptable to WCB.
Qualified Person	(a) A defined by the regulatory authority; or, (b) a person who, because of their knowledge, training, qualifications, or experience, is competent to perform the duties of their job.

Qualitative Fitting Test (QLFT)	A pass/fail fit test in which the respirator wearer assesses the fit of the respirator by being subjected to a challenge agent that can be adequately detected by the senses.
Quantitative Fitting Test (ANFT)	A fit test in which the assessment of the adequacy of the respirator fit is numerically measured by comparing respirator leakage with ambient concentrations of the challenge agent.
Reactivity	A substances' susceptibility to undergoing a chemical reaction or change that may result in dangerous side effects, such as an explosion, burning and corrosive or toxic emissions.
Regulatory Authority	An agency established by a provincial, federal, or territorial government, that has the authority to make or enforce (or both), regulations regarding occupational health and safety.
Respirator	A device designed to protect the wearer from inhaling hazardous atmospheric fumes.
Safety Can	An approved container, no more than five gallons in capacity, having a spring-closing lid and spout cover designed to safely relieve internal pressure when subjected to fire exposure.
Safety Cuffs	An extended piece of material attached by a seam at the wrist. Safety cuffs provide additional protection to the wrist area and slide on and off easily. Safety cuffs are typically made of more rigid material and remain firm even when exposed to perspiration.
SAR	Supplied-air Respirator. Both continuous-flow and pressure demand are of this type.
SCBA	Self-contained breathing apparatus. Designed for entry into and escape from atmospheres immediately Dangerous to Life or Health (DLH) or oxygen deficient. Is one of the highest levels of respiratory protection. The wearer carries the air supply on his/her back. This is what fire fighters use.
Shade #	Comparative darkness or obscurity owing to interception of the rays of light. Used in reference to goggles or safety glasses.
Slip-on Cuffs	Slip-on cuffs (or band top) designs allow easy donning and doffing and are continuous with the rest of the glove (no seam is used).
STEL	Short-term Exposure Limit; maximum concentration for a continuous 15-minute exposure period. (Maximum of four such periods per day, 60 minutes minimum between exposure periods, and the daily TLV-TWA must not be exceeded).
STEL	Short Term Exposure Limit.
Supplied Air	Breathable air supplied to a worker's mask/hood from a source outside the contaminated area.
Supported Gloves	Gloves that are constructed of a coated fabric.
TLV	Threshold Limit Value. An estimate of the average safe airborne concentration of a substance which represents conditions under which it is believed that nearly all workers may be repeatedly exposed to day-after-day without adverse effect. The TLV values are published yearly by the ACGIH in the TLV booklet. TLV values should be prefaced with the year issued. TLV is a trademark of ACGIH.
TWA	Time Weighted Average. Usually a personal, 8-hour average exposure concentration to an airborne, chemical hazard; ppm and mg/m ³ .
Type I	A safety can with a single spout.
Type II	A safety can with two openings; one for pouring and one for filling.

Tyvek®	A disposable non-woven fabric made by spun bonding millions of tiny polyethylene fibers. This process yields a lightweight fabric that is tough with outstanding tensile and tear strength. Manufactured by DuPont company and used for disposable clothing applications.
Ultraviolet	Wavelengths of the electromagnetic spectrum that are shorter than those of visible light and longer than x-rays.
Unsupported Gloves	Unlined gloves without any type of fabric lining.
Vapors	The gaseous form of substances that are normally in the solid or liquid state (at room temperature and pressure).
Waterproofness	The property of impenetrability by liquid water.