

# Respiratory Protection Definitions

## ***Disposable Respirator***

A device for which maintenance is not intended and which is designed to be discarded after excessive breathing resistance, sorbet exhaustion, physical damage or end of service life renders it unsuitable for use.

## ***Hazardous atmosphere***

An atmosphere that contains a contaminant in excess of its permissible exposure level or that is oxygen deficient.

## ***Immediately Dangerous Health to Life or Health (IDLH) level***

Any atmosphere that poses an immediate hazard to life or poses immediate irreversible debilitating effects on health or impairs the ability to escape.

## ***Loose fitting face piece***

A respiratory inlet covering that is designed to form a partial seal with the face, does not cover the neck & shoulders and may or may not offer head protection against impact and penetration.

## ***Negative Pressure Respirator***

A respirator in which the air pressure inside the respiratory inlet covering is less than the ambient air pressure during inhalation.

## ***Positive Pressure Respirator***

A respirator in which the pressure inside the respiratory inlet covering is higher than the ambient air pressure.

## ***Protection factor***

Ratio of the concentration of contaminant present in the ambient atmosphere to its concentration in the air inhaled by the wearer of a respiratory protective device.

## ***Radionuclide***

Radionuclide is the atom which emits gamma rays or subatomic particles (protons, neutrons). Radionuclide may occur naturally, but can also be artificially produced.

## ***Respirator inlet covering***

The portion of a respirator that connects the user's respiratory tract to an Filter (air purifying device) or a respirable gas source or both. It may be a face piece, helmet or hood. It serves as a barrier against the contaminated atmosphere and as a framework to which air purifying or air supplying elements may be attached.

## ***Time weighted average (TWA)***

The concentration of a contaminant in air determined by adding together the products of each concentration and the corresponding time over which that concentration was measured, and dividing the sum by the total time over which the measurements were taken.

## ***Contaminant***

Undesirable, solid, liquid or gaseous substances in the air.

**Fog**

An atmosphere in which visibility is reduced because of cloud of some substances.

**Smoke**

General term denoting an aerosol generated by incomplete combustion.

**Fumes**

Fine solid aerosol which maybe chemically generated or of metallic origin. It is generally less than one diameter.

**Inhalable**

Particles having a 50% cut point of 100 micron. These particle may be hazardous when deposited in the head airway region.

**Toxic dust**

Dust which may be harmful to the respiratory system or to the other parts of the body after passing from the respiratory tract into the blood stream.

**Aerosol**

Suspension of solid, liquid or solid and liquid particles in gaseous medium, having a negligible falling velocity (generally considered to be less than 0.25m/s)

**Smog**

A combination mixture of fog and smoke.

**Vapor**

Gaseous phase of a substance which is liquid or solid at 20°C and 1 bar (absolute)

**TLV / OEL**

Threshold limit value or occupational exposure limit. Air-borne concentration of toxic substances and represents condition under which it is believed that nearly all workers may by repeatedly exposed day after day without adverse effect.

**Asphyxiants**

They interfere with utilization of O<sub>2</sub> in the body.

**Simple asphyxiants**

These are physiologically inert substances that dilute O<sub>2</sub> in the air, for ex-N, H, CH<sub>3</sub> and CO<sub>2</sub>.

**Chemical asphyxiates**

In low concentration, these interfere with the supply or utilization of O<sub>2</sub> in the body by chemically reaching with blood, for example CO, HCN, Cyanogens and Nitriles.

**Irritants**

These are corrosive in action. They may cause irritation and inflammation of parts of the respiratory system (also skin and eyes) and ammonia, HCl, phosgene and arsenic dichloride.