

Exposure Limits Terms and Abbreviations

IDLH

(Immediately Dangerous to Life and Health)

- The maximum concentration level of a substance (gas) from which a worker could escape within 30 minutes without developing immediate severe or irreversible health effects, or other escape-impairing symptoms.
- IDLH levels are measured in ppm (parts per million).

*As defined by NIOSH (National Institute of Occupational Safety and Health).

PEL

(Permissible Exposure Limit)

- An airborne concentration of contaminant that most workers can be exposed to repeatedly in a normal 8 hour day, in a 40 hour week, without adverse health affects.
- PEL levels are measured in ppm (parts per million) and are established by OSHA.

PPM

(Parts Per Million)

- The most common unit of measurement for toxic gases. "10,000 parts per million" gas concentration is equal to 1% by volume.

TLV

(Threshold Limit Value)

- Refers to the airborne concentration of substances to which most workers can be repeatedly exposed over a working lifetime without adverse affects.

*As defined by ACGIH (American Conference of Governmental Industrial Hygienists).

There are Three Categories of TLVs:

TLV-TWA

(Time Weighted Average)

- The average amount of gas that a worker can be repeatedly exposed to in a normal 8 hour day, 40 hour week, without adverse health effects.

TLV-STEL

(Short Term Exposure Limit)

- The gas concentration most workers can be continuously exposed to for a 15-minute time period without suffering adverse health affects that would impair self-rescue or worker safety. This limit should not be repeated more than 4 times per day and there should be at least 60 minutes between individual STEL exposure periods.

TLV-C

(Ceiling)

- The highest gas concentration to which workers may be exposed. Ceiling TLVs should never be exceeded and they take precedence over all TWAs and STELs.

LEL

(Lower Explosive Limit)

- The lowest concentration of a gas or vapor that will ignite and sustain combustion. "% LEL" is a common unit of measurement in combustible gas detection.

UEL

(Upper Explosive Limit)

- Maximum concentration at which a gas will sustain combustion.

Oxygen Deficient Atmosphere

- An atmosphere containing less than 19.5% oxygen by volume.

(Possesses a risk of insufficient oxygen for breathing).

Oxygen Enriched Atmosphere

An atmosphere containing more than 25% oxygen by volume.

(Possesses an increased risk of explosion).

Please call

to discuss your application

with a product specialist