

# PREPARE FOR OXYGEN HAZARDS!

Oxygen deficient atmospheres are a leading cause of incidents and fatalities in confined spaces. Make sure you know what to do when you're faced with them.

Normal air contains  
**20.9 - 21% OXYGEN**

## OXYGEN-DEFICIENT ATMOSPHERES CAN EXIST IN AREAS:

- Where inert gases are used to displace oxygen
- Of confined spaces
- Where there are rusting metals or drying paint
- Where combustion occurs
- Where bacterial activities occur

Oxygen-deficient atmospheres contain **LESS than 19.5% oxygen**

## OXYGEN-ENRICHMENT OCCURS BECAUSE OF:

- Leaking pipes, connections, and flanges when there's inadequate ventilation
- Oxygen use in cutting and welding processes
- Liquid oxygen spills or the evaporation of liquid oxygen
- Areas where oxygen vents are located

Oxygen-enriched air contains **OVER 21% OXYGEN**

Oxygen-enriched atmospheres have serious fire and explosion risks.

<b>% OXYGEN</b>	<b>PHYSIOLOGICAL EFFECT</b>
<b>19.5 - 16</b>	No visible effect.
<b>16 - 12</b>	Increased breathing rate. Accelerated heartbeat. Impaired attention, thinking, and coordination.
<b>14 - 10</b>	Faulty judgement and poor muscular coordination. Muscular exertion causing rapid fatigue. Intermittent respiration.
<b>10 - 6</b>	Nausea and vomiting. Inability to perform vigorous movement, or loss of the ability to move. Unconsciousness, followed by death.
<b>BELOW 6</b>	Difficulty breathing. Convulsive movements. Death in moments.

**KNOW THE RISKS OF OXYGEN-ENRICHED AND OXYGEN-DEFICIENT ATMOSPHERES, SO YOU CAN PREPARE PROPERLY.**