

Enhance Laboratory Safety with NCCO Technology



EU Directive 2004/37/EC

The European Union (EU) Directive 2004/37/EC, known as the Carcinogens and Mutagens Directive, came into force from July 12 2024.

This Directive includes a Binding Occupational Exposure Limit Value, which places the responsibility on employers to ensure that formaldehyde levels in labs do not exceed 0.3ppm (0.37mg/m³) an 8-hour period, effective July 12 2024.

Are you ready?

Traditional methods of Air Purification?

Historically, laboratories have employed two methods to remove gaseous pollutants from indoor environments:

- **Ventilation Systems:** These systems extract or exchange contaminated air from the general space, replacing it with fresh air.
- **Activated Carbon Adsorptive Filtration Technology:** This method removes VOCs and formaldehyde by adsorbing these compounds onto the surface of activated carbon filters.

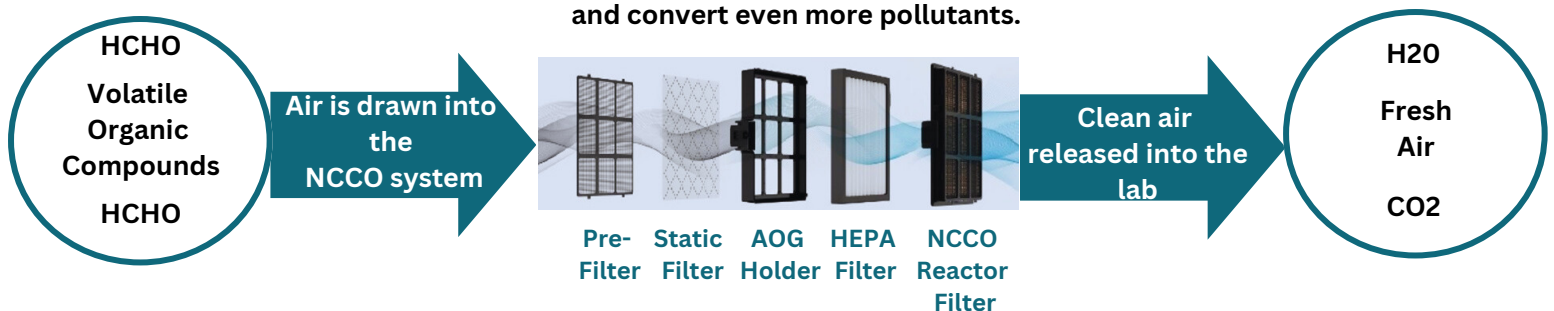
While effective, both technologies have limitations and can be costly to implement and maintain. However, RHT Industries has developed an innovative solution called NCCO technology, which is proven to deliver superior results.

What is NCCO Technology?

Nano-Confined-Catalytic-Oxidation (NCCO) is a patented air purification technology that overcomes the limitations of traditional adsorptive methods such as activated carbon filters. Unlike activated carbon, NCCO technology offers a longer filter life, sustainability, lower running costs, making it a superior choice in the market.

How does NCCO work?

**Pollutants are captured, decomposed and killed.
NCCO system continuously regenerates to remove
and convert even more pollutants.**



NCCO: The Future of Laboratory Air Purification

- **Unmatched Filtration Efficiency:**
 - NCCO technology removes up to 99% of formaldehyde and other VOCs, ensuring the highest standard of air quality in laboratories.
- **Continuous Air Purification:**
 - Unlike activated carbon filters, NCCO continuously breaks down pollutants, providing uninterrupted air purification.
- **Cost Effective and Sustainable:**
 - With a lifespan of up to 12 years, NCCO filters reduce the long-term costs associated with frequent filter replacements and are environmentally friendly.

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Why choose NCCO over Activated Carbon ?

NCCO is not just another air treatment system. It's a groundbreaking, patented technology designed to address the shortcomings of commonly used air purification technologies like activated carbon. It offers unmatched efficiency in removing harmful formaldehyde ensuring a safer and healthier laboratory environment.

Features	NCCO Technology	Activated Carbon
Formaldehyde Removal Efficiency	>99%	<60-70%
Pollutant Breakdown	Decomposes formaldehyde to CO ₂ and H ₂ O molecules	Traps pollutants without breaking them down, leading to a risk of secondary pollution
Filter Longevity	NCCO filter is self regenerating lasting up to 12 years	Needs frequent replacement every 3-6 mths in some lab environments
Maintenance Costs	The long life of the NCCO filter OPEX costs are lower	Relatively high due to frequent replacement and disposal costs
Environmental Impact	Sustainable, eco friendly with no special disposal costs or methods	Pollutants are trapped affecting surrounding environment
Carbon Footprint	Has only 10% carbon footprint compared to Activated Carbon	90% more carbon footprint compared with NCCO

Key Features and Benefits of NCCO Technology

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 - Removes up to 99% of formaldehyde and other VOCs.
 - Ensures the highest standard of air quality in laboratories.
- **Continuous Air Purification:**
 - Continuously breaks down pollutants.
 - Provides uninterrupted air purification.
- **Cost Effective and Sustainable:**
 - Lifespan of up to 12 years.
 - Reduces long-term costs associated with frequent filter replacements.
 - Environmentally friendly.

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