

Background information: Volatile organic compounds

VOC (Volatile Organic Compounds)

What are VOCs and where do they come from?

The English abbreviation "VOC" stands for volatile organic compounds, which are present in the air in gaseous or vapor form at room temperature.

Many solvents, liquid fuels and synthetically manufactured substances may be present as VOCs, but also many organic compounds which are formed in biological processes. Humans and animals give off VOC through breathing or directly from the skin.

The following table shows some typical VOCs for interior spaces and their sources:

Typical pollutants (VOCs) in interior spaces and their sources			
Causes	Emissions source	VOC	
Humans and animals	Breath	Acetone, ethanol, isoprene	
	Perspiration and transpiration	Nonanal, decanal, α -Pinene	
	Flatus	Hydrogen, methane	
	Cosmetics	Limonene, eucalyptol	
	Household materials	Alcohols, esters, limonene	
	Combustion (motors, ovens, cigarettes)	Unburned hydrocarbons	
	Building materials, furniture, office equipment, consumer products	Paints, varnishes, adhesives, solvents, carpets	Formaldehyde, alkanes, alcohols, aldehydes, ketones, siloxanes
		PVC	Toluol, xylool, decane
		Printers/copiers, computers	Benzene, styrol, phenol

The following guide values can be used for evaluating the measuring result:

Guide values for air quality evaluation

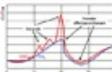
Level	Hygiene level	Recommendation	TVOC [ppb]	CO ₂ [ppm]
5 Unhealthy	Situation unacceptable	Use only if unavoidable -Intensive ventilation required	2200+	2000+

Guide values for air quality evaluation

Level	Hygiene level	Recommendation	TVOC [ppb]	CO2 [ppm]
4 Poor	Very concerning	- Increased ventilation - Ventilation required - Search for sources	660-2200	1600-1900
3 Moderate	Concerning	- Increased ventilation - Ventilation recommended - Search for sources	220-660	1100-1500
2 Good	No relevant concerns	Ventilation recommended	65-220	700-1000
1 Very good	No concerns	Target value	0-65	0-600



VOCs and room air quality



Measure air quality with a VOC sensor



www.WuT.de

We are available to you in person:

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