



TO-15 Low-Boiling mVOC Correlation Chart



Compound	Organism
Ethanol	<i>Penicillium aurantiogriseum</i>
	<i>Acremonium obclavatum</i>
	<i>A. versicolor</i>
1-propanol*	<i>Penicillium aurantiogriseum</i>
1,3-dimethylbenzene(m-xylene)	<i>A. versicolor</i>
1,3-dimethylbenzene(m-xylene)	<i>P. variotii (non specific xylene)</i>
3-methylhexane*	<i>Penicillium aurantiogriseum</i>
1-heptene*	<i>P. chrysogenum</i>
Beta-pinene*	<i>P. expansum</i>
	<i>P. commune</i>
Limonene*	<i>P. expansum</i>
	<i>Aspergillus obclavatum</i>
	<i>P. commune</i>
	<i>A. Versicolor</i>
Styrene	<i>P. glabrum</i>
2-butanone	<i>P. olsonii</i>
	<i>Paecilomyces variotii</i>
	<i>P. commune</i>
	<i>Phialophora fastigata</i>
	<i>Acremonium obclavatum</i>
	<i>Streptomyces sp.</i>
1,3-pentadiene *	<i>A. versicolor</i>
2,3,5-trimethyl-hexadiene*	
Anisole*	
Dimethyl disulfide*	
Octane*	
Trimethyl benzene	<i>P. variotii</i>
Isopropanol	
Heptane	<i>P. commune</i>
Acetone	<i>P. commune</i>
	<i>Phialophora fastigata</i>
	<i>Acremonium obclavatum</i>
Methyl acetate*	<i>P. commune</i>
Ethyl acetate	
Propyl acetate*	
Alpha-pinene *	
Toluene	<i>Acremonium obclavatum</i>
	<i>A. versicolor</i>
Cyclohexane	<i>Acremonium obclavatum</i>
Benzene	<i>Acremonium obclavatum</i>
	<i>A. versicolor</i>
Pentane*	<i>Acremonium obclavatum</i>

* TICs

How to use this chart:

If your TO-15 sample TCL (target compound list) and Library Search TICs (tentatively identified compounds) show the presence of certain compounds, check this table and if you find two or more compounds that are common to an organism—you may have evidence of the presence of this organism. Caution must be exercised because most of these chemical compounds are also common industrial and household solvents.

Reference: Bioaerosols, Chapter 26, ACGIH, 1999.



TO-15 Low-Boiling mVOC Correlation Chart



Compound	Organism
Ethanol, 1-propanol, 3-methylhexane,	<i>Penicillium aurantiogriseum</i>
Ethanol, 2-butanone, Acetone, Toluene, Cyclohexane, Benzene, Pentane	<i>Acremonium obclavatum</i>
Ethanol, 1,3-dimethylbenzene, Limonene, 1,3-pentadiene, 2,3,5-trimethylhexadiene, Anisole, Dimethyldisulfide	<i>A. versicolor</i>
m-xylene	<i>P. variotii (non specific xylene)</i>
1-heptene	<i>P. chrysogenum</i>
Limonene, Beta-pinene	<i>P. expansum</i>
Limonene, Beta-pinene, 2-butanone, Heptane, Acetone, Methyl Acetate, Ethyl Acetate, Propyl Acetate, Alpha-Pinene	<i>P. commune</i>
Limonene	<i>Aspergillus obclavatum</i>
Styrene	<i>P. glabrum</i>
2-butanone	<i>P. olsonii</i>
Octane, Trimethylbenzene, Isopropanol	<i>P. variotii</i>
2-butanone	<i>Paecilomyces variotii</i>
2-butanone	<i>Phialophora fastigata</i>
2-butanone	<i>Streptomyces sp.</i>