



# SARCO

L'expertise analytique

## Wine Defects



**OXIDATION**

Compounds <sup>2</sup>	Aroma descriptors	White wine P.t.
Acetaldehyde	Apple, bitterness	160 mg/L
Ethyl acetate*	Solvent, glue	150 mg/L



**SMOKE  
TAINT**

Compounds <sup>3</sup>	Aroma descriptors	Red wine P.t.
Guaiacol	Smoke	75 µg/L
4-Methylguaiacol	Smoke, medicine, ashes	65 µg/L



**EARTHY  
TAINTS**

Compounds	Aroma descriptors	White wine P.t.
Geosmin <sup>3*</sup>	Wet earth, beetroot	40 ng/L
2-méthylisoborneol <sup>3</sup>	Earthy, camphor	45 ng/L
1-octen-3-one <sup>2</sup>	Fresh mushroom	40 ng/L
1-Octen-3-ol <sup>3</sup>	Mushroom, humus aromas	25 µg/L
2-Isopropyl-3-méthoxypyrazine <sup>2</sup>	Earthy, vegetal	3 ng/L



**MOULDY,  
CORK TAIN**

Compounds <sup>3</sup>	Aroma descriptors	White wine P.t.
2,4,6-Trichloroanisole (TCA)*	Cork taint, mouldy	3 ng/L
2,3,4,6-Tetrachloroanisole (TeCA)*	Mouldy	10 ng/L
2,3,4,5,6-Pentachloroanisole (PCA)*	Mouldy	4000 ng/L
2,4,6-Tribromoanisole (TBA)*	Cork taint, mouldy	4 ng/L
Halophenols (TCP, TeCP, PCP, TBP)*	/	/

\*compounds analysed under COFRAC accreditation



**VEGETAL**

Compounds <sup>2</sup>	Aroma descriptors	Red wine P.t.
2-Isobutyl-3-methoxypyrazine	Green pepper, asparagus	15 ng/L
Hexanal	Floral, vegetal	5 µg/L
cis/trans-2-Hexen-1-ol	Herbaceous	15 mg/L



**HORSEY,  
PHENOL TAIN**

Compounds <sup>3</sup>	Aroma descriptors	Red wine P.t.
4-Ethylphenol* + 4-Ethylguaiacol*	Stable, horse sweat	426 µg/L
4-Vinylphenol + 4-Vinylguaiacol	Gouache paint, pharmaceutical	725 µg/L



**REDUCTION**

Compounds <sup>2</sup>	Aroma descriptors	Red wine P.t.
Hydrogen sulfide (H <sub>2</sub> S)	Rotten egg	0,8 µg/L
Methanethiol	Stagnant water	0,3 µg/L
Ethanethiol	Onion	0,1 µg/L
Dimethyl sulfide	Quince	5 µg/L
Diethyl sulfide	Garlic	6 µg/L
Dimethyl disulfide	Cabbages	2,5 µg/L
Methionol	Cooked cabbage	1200 µg/L



**PREMATURE  
OXIDATION**

Compounds	Aroma descriptors	White wine P.t.
Sotolon <sup>1</sup>	Curry, walnut	8 µg/L
Phenylacetaldehyde <sup>3</sup>	Faded rose, honey	25 µg/L
Méthional <sup>3</sup>	Boiled potato	0.5 µg/L

Analysis methods: <sup>1</sup>GC/MS [EI]-[CI] / <sup>2</sup>SPME-GC-MS / <sup>3</sup>SBSE/GC/MS ; P.t.: perception thresholds - Faculté d'oenologie de Bordeaux