

Everyone's buzzing about 4MMP ...

BY Carien Coetzee

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WHAT IS IT?

4-Mercapto-4-methylpentan-2-one (4MMP) is one of the three major volatile thiols that contribute to the typical character of especially Sauvignon blanc wines.

WHAT DOES IT SMELL LIKE?

Its aroma is traditionally described as “box tree”, “blackcurrant”, “broom” and “cat urine”. It has also been described as “green”, “mint” and “exotic fruits”.

WHAT IS ITS ODOUR THRESHOLD IN WINE?

4MMP has the lowest odour threshold of the three volatile thiols at 0.8 ng/l.

WHAT IS ITS CONCENTRATION IN WINE?

According to scientific literature the concentration range of 4MMP in Sauvignon blanc wines worldwide is 4 - 40 ng/l, however concentrations of up to 88 ng/l have been reported. Other varieties such as Semillon can also contain a significant amount of 4MMP. Most recently, 4MMP was also detected in Chenin blanc for the first time.

For the past two years the 4MMP levels in the FNB Top 10 Sauvignon blanc wines were analysed. Results showed a staggering amount of 4MMP to be found in South African Sauvignon blancs! 2016 and 2017's FNB Top 10 wines showed concentrations of up to 124 ng/l, which are huge amounts of this thiol especially considering in general that this thiol can be absent in wines from other countries. Even to such an extent that some researchers have stopped analysing for it.

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