

Attribute Information:

1. fixed acidity (most acids involved with wine or fixed or nonvolatile (do not evaporate readily): continuous.
2. volatile acidity (the amount of acetic acid in wine, which at too high of levels can lead to an unpleasant, vinegar taste): continuous.
3. citric acid (found in small quantities, citric acid can add 'freshness' and flavor to wines): continuous.
4. residual sugar (the amount of sugar remaining after fermentation stops, it's rare to find wines with less than 1 gram/liter and wines with greater than 45 grams/liter are considered sweet): continuous.
5. chlorides (the amount of salt in the wine): continuous.
6. free sulfur dioxide (the free form of SO₂ exists in equilibrium between molecular SO₂ (as a dissolved gas) and bisulfite ion; it prevents microbial growth and the oxidation of wine): continuous.
7. total sulfur dioxide (amount of free and bound forms of S₀₂; in low concentrations, SO₂ is mostly undetectable in wine, but at free SO₂ concentrations over 50 ppm, SO₂ becomes evident in the nose and taste of wine): continuous.
8. density (the density of water is close to that of water depending on the percent alcohol and sugar content): continuous.
9. pH (describes how acidic or basic a wine is on a scale from 0 (very acidic) to 14 (very basic); most wines are between 3-4 on the pH scale): continuous.
10. sulphates (a wine additive which can contribute to sulfur dioxide gas (S₀₂) levels, which acts as an antimicrobial and antioxidant): continuous.
11. alcohol (degree of alcohol present in the wine): continuous.

Target Information:

12. quality (classification of the quality of the wine): 0 (bad), 1 (good).