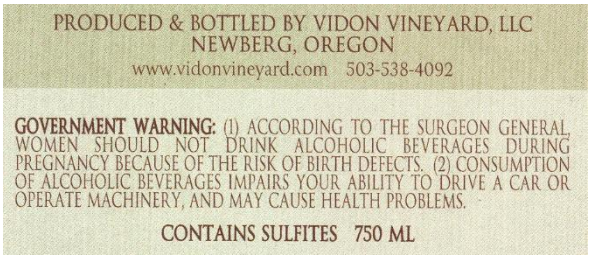
Sulfites in Wine

There's a lot of misunderstanding and erroneous information about sulfites in wine. I'd like to try and help set the record straight.

Sulfites occur naturally in all wines. Yeasts produce sulfites during fermentation so nearly every wine has some measurable sulfite content. Thus, even organic wines are not sulfite-free, though they generally have the lowest amount of any wine category because no additional sulfites are added. In traditional winemaking, bisulfite (HSO_3^-, sulfur with three atoms of oxygen) is added at several stages of the process because it inhibits the growth of spoilage organisms and prevents unwanted oxidation reactions. Without sulfites grape juice would quickly turn to vinegar. Organic and especially "natural" wines, with their minimal sulfite protection, can be very perishable and often have unusual aromas from the aldehydes that are normally bound and rendered undetectable by the sulfites. Typical levels of SO_2 in bottled wines range from 20 to 40 PPM (parts per million), similar to the concentration found in maple syrup and some fruit juices. In general, white wines contain more sulfites than red wines, and sweeter wines contain more sulfites than dryer ones.

The typical human naturally produces a gram of sulfites per day in the course of metabolizing sulfur-containing amino acids. These sulfites are converted into inert sulfate (SO_4, sulfur with four bonded oxygens) by the enzyme sulfite oxidase (SUOX). The liver contains high levels of SUOX, and will rapidly degrade ingested sulfites into sulfate for excretion in the urine. Despite this protection, a small fraction of the population is sensitive to sulfites. However, sensitivity is limited almost entirely to an asthmatic reaction. Adverse reaction to sulfites in non-asthmatics is extremely rare (Lester ML, J Am Coll Nutr. 1995 **14**(3):229-32). Thus, the belief held by many Americans that they are allergic to sulfites is probably groundless.

After a series of asthma incidents brought on by sulfite-treated lettuces and vegetables at salad bars, the FDA banned the use of sulfites in raw fruits and vegetables and required that food labels declare the presence of sulfites at concentrations greater than 10 PPM. Bowing to political pressure, the BATF (Bureau of Alcohol, Tobacco, Firearms and Explosives) agreed in 1986 to require sulfite labeling on wine containers. Therefore, wines bottled in the United States after mid-1987 must have a label stating that they contain sulfites if they have more than 10 PPM.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GOVERNMENT WARNING: (1) ACCORDING TO THE SURGEON GENERAL, WOMEN SHOULD NOT DRINK ALCOHOLIC BEVERAGES DURING PREGNANCY BECAUSE OF THE RISK OF BIRTH DEFECTS. (2) CONSUMPTION OF ALCOHOLIC BEVERAGES IMPAIRS YOUR ABILITY TO DRIVE A CAR OR OPERATE MACHINERY, AND MAY CAUSE HEALTH PROBLEMS.

CONTAINS SULFITES 750 ML

Despite three decades of disinformation from neo-Prohibitionists, no confirmed ill health effects of any kind has ever been attributed to sulfites in wine. There is no medical research data showing that sulfites cause headaches. There is something in red wine that can cause headaches which may be histamines (http://www.finewineandgoodspirits.com/wcsstore/WineandSpirits/learnentertain/entertain/wine_sensitivities.html) but the cause has not yet been determined with certainty. To avoid these common headaches, try drinking less wine and always drink with food. If you think sulfites are causing your headaches, try eating some orange-colored dried apricots which typically have 2000 PPM of sulfites, a hundred times more than most wines. If that doesn't induce a headache, sulfites are not the likely culprit. Finally, the Wine Institute funded extensive testing in the 1960s and concluded that sulfur dioxide as used in wine is not a carcinogen, a finding that has never been challenged.

Despite our belief that sulfites are safe and play a vital role in modern winemaking methodology, Vidon uses sulfites at a lower level than most wineries. Our reasons are twofold. First, all the fruit is estate from our vineyard and is very clean. Second, by using screw caps and VinoSeal glass stoppers premature oxidation is less of a concern.

Therefore we don't plan to change our "sulfite" ways!