

Frey Vineyards

Organic & Biodynamic®

Questions and Answers About Sulfites in Wine

What are sulfites?

The abundant element sulfur takes on many forms and is present in all living things. Naturally occurring sulfites can be present in wine and other foods. Synthetic sulfites in the form of sulfur salts or sulfur dioxide solutions are often used in conventional winemaking to protect against oxidation and bacterial spoilage. Unfortunately, winemakers can be excessive in their use of synthetic sulfites, which has the effect of masking delicate flavors, assaulting the nose, and possibly causing headaches and allergic reactions to those especially sensitive. Modern winemaking equipment and sanitation make it possible to produce sound wines without such additives.

What happens when synthetic sulfites are added to wine?

Due to its reactive nature, most of the added sulfite molecule binds with other substances in the wine. Since bound sulfites are part of larger molecules they usually can not be tasted or smelled, except at high levels. A smaller part of the sulfite molecule travels freely through the wine, and binds with the air, bacteria, or other substances that can cause wine to spoil. It is this “free” sulfite which has a strong preservative effect in the wine and can be more easily smelled and tasted or cause a sulfite reaction.

How are sulfites measured?

For most measurements, the bound and free sulfite fractions are added together to get the “total” sulfite level in the wine. Since sulfites are a powerful preservative, they are added to wine in small amounts and are measured in parts per million, or “ppm.” Although the legal limit in wine is 350 ppm, most wines with added sulfites contain less, generally 25 to 150 ppm. According to federal law, if a wine contains 10 ppm or more of total sulfites, the label must state “contains sulfites.”

Are Sulfites Added to Frey Wines?

No, but they may occur naturally in small amounts. See below.

What about naturally occurring sulfites in Frey Wines?

Despite being additive free, many foods and wines contain small amounts of naturally occurring sulfites. For example, an egg tested at an independent wine laboratory showed 6 ppm total sulfites. Naturally occurring sulfites are present in some of our wines in small amounts – under 10ppm. But 85% of Frey Wines contain no detectable sulfites – below 0 ppm. In both cases, the wines meet the USDA Organic Wine standards. Red wines and older white wines contain the lowest levels of naturally occurring sulfites (none detected or under 5 ppm), while young red and white wine may occasionally show levels from 5 to 9 ppm naturally occurring sulfites.

What are Organic Wines?

Under the USDA National Organic Program, Frey Wines are Organic Wines because they are made from certified organic grapes and contain no additives such as sulfites or tartaric acid and contain less than 10 ppm naturally occurring sulfites. This allows our wines to bear the USDA Organic seal. Wineries that use organic grapes, but add sulfites or other additives can be labeled “Made with organically grown grapes,” if they contain under 100 ppm sulfites.



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