

What's in Your Wine?

Below is a guide to all 76 additives approved for the use in winemaking in the U.S. [The government's public list is here](#). Each additive has been verified with the National Institute of Health (NIH), or with other chemical accreditations when the NIH was not available.

Additive Name	Additive Use	NIH Classification
Acacia (gum arabic)	To clarify and to stabilize wine	Irritant, Health Hazard
Acetaldehyde	For color stabilization of juice prior to concentration	Irritant, Flammable, Health Hazard
Activated carbon	To assist precipitation during fermentation, to clarify and to purify wine, and/or to remove color in wine and/or juice from which the wine was produced	Irritant, Health Hazard
Albumen (egg white)	Fining agent for wine	None
Alumino-silicates (hydrated) e.g., Bentonite (Wyoming clay) and Kaolin	To clarify and to stabilize wine or juice	Irritant, Health Hazard
Ammonium phosphate (mono- and di- basic) or Ammonium phosphate/Diammonium phosphate	Fermentation aid: To facilitate fermentation of juice and wine	Irritant
Ascorbic acid iso-ascorbic acid (erythorbic acid)	To prevent oxidation of color and flavor components of juice and wine	Irritant
Bakers yeast mannoprotein	To stabilize wine from the precipitation of potassium bitartrate crystals	None
Biotin (vitamin B7)	To facilitate fermentation of juice and wine (fermentation aid)	None
Calcium carbonate (with or without calcium salts of tartaric and malic acids)	(1) To reduce the excess natural acids in high acid wine, and in juice prior to or during fermentation. (2) A fining agent for cold stabilization	Corrosive, Irritant
Calcium pantothenate (vitamin B5)	To facilitate fermentation of juice and wine (fermentation aid)	None
Calcium sulfate (gypsum)	To lower pH in sherry wine	Irritant
Carbohydrase (alpha-Amylase), derived from the molds <i>Aspergillus niger</i> or <i>Aspergillus oryzae</i>	To convert starches to fermentable carbohydrates (enzyme)	Health Hazard
Carbohydrase (beta-Amylase)	To convert starches to fermentable carbohydrates (enzyme)	Health Hazard
Carbohydrase (Glucoamylase, Amylogluco-sidase), derived from the mold <i>Aspergillus niger</i> or <i>Aspergillus oryzae</i>	To convert starches to fermentable carbohydrates (enzyme)	None
Carbohydrase (pectinase, cellulase, hemicellulase)	To facilitate separation of juice from the fruit (enzyme)	Irritant, Health Hazard
Carbon dioxide (including food grade dry ice)	To stabilize and to preserve wine	None
Casein, potassium salt of casein	To clarify wine	None
Catalase from the mold <i>Aspergillus niger</i> or cow liver	To clarify and to stabilize wine (enzyme)	Irritant
Cellulase derived from the mold <i>Aspergillus niger</i>	To clarify and to stabilize wine and to facilitate separation of the juice from the fruit (enzyme)	Health Hazard
Cellulase (beta-glucanase)	To clarify and filter wine (enzyme)	Health Hazard
Chitosan from <i>Aspergillus niger</i>	To remove spoilage organisms such as <i>Brettanomyces</i> from wine	None
Citric acid	To correct natural acid deficiencies in wine To stabilize wine other than citrus wine	Irritant
Copper sulfate	To remove hydrogen sulfide and/or mercaptans from wine	Irritant
Dimethyl dicarbonate (DMDC)	To sterilize and to stabilize wine, dealcoholized wine, and low alcohol wine	Acute Toxin, Corrosive, Irritant, Flammable
Dimethylpoly-siloxane	To control foaming, fermentation adjunct (defoaming agent)	Irritant

Ethyl maltol	To stabilize wine	Irritant
Ferrous sulfate	To clarify and to stabilize wine	Irritant
Fractionated potato protein isolates	Fining agent for wine	None
Folic acid (folate)	To facilitate fermentation of juice and wine (fermentation aid)	Irritant
Fumaric acid	To correct natural acid deficiencies in grape wine To stabilize wine	Irritant
Gelatin (food grade)	To clarify juice or wine	None
Glucose oxidase derived from the mold <i>Aspergillus niger</i>	To clarify and to stabilize wine (enzyme)	Health Hazard
Glyceryl dioleate	To control foaming, fermentation adjunct (defoaming agent)	None
Glyceryl mono-oleate	To control foaming, fermentation adjunct (defoaming agent)	None
Granular cork	To smooth wine	None
Inositol (myo-inositol)	To facilitate fermentation of juice and wine (fermentation aid)	Irritant
Isinglass (also known as "fish bladders")	To clarify wine	None
Lactic acid	To correct natural acid deficiencies in grape wine	Corrosive, Irritant
Lysozyme	To stabilize wines from malolactic acid bacterial degradation. (enzyme)	None
Magnesium sulfate	To facilitate fermentation of juice and wine (fermentation aid)	Irritant
Malic acid	To correct natural acid deficiencies in juice or wine	Corrosive, Irritant
Malo-lactic bacteria	To stabilize grape wine	None
Maltol	To stabilize wine	Irritant
Milk products (pasteurized whole, skim, or half-and-half)	Fining agent for grape wine or sherry To remove off flavors in wine	None
Niacin (vitamin B3)	To facilitate fermentation of juice and wine (fermentation aid)	Irritant
Nitrogen gas	To maintain pressure during filtering and bottling or canning of wine and to prevent oxidation of wine	None
Oxygen and compressed air	Various uses in juice and wine	None
Pectinase , derived from the mold <i>Aspergillus niger</i>	To clarify and to stabilize wine and to facilitate separation of juice from the fruit (enzyme)	None
Polyoxyethylene 40 monostearate	To control foaming, fermentation adjunct (defoaming agent)	None
Polyvinylpyrrolidone (PVPP)	To clarify and to stabilize wine and to remove color from red or black wine or juice	Corrosive, Irritant
Polyvinylpyrrolidone (PVP)/ Polyvinylimidazole (PVI) Polymer	To remove heavy metal ions and sulfides from wine	None
Potassium bitartrate (also known as cream of tartar)	To stabilize grape wine	None
Potassium carbonate and/or potassium bicarbonate	To reduce excess natural acidity in wine, and in juice prior to or during fermentation	Irritant
Potassium citrate	pH control agent and sequestrant in treatment of citrus wines	None
Potassium meta-bisulfite	To sterilize and to preserve wine	Corrosive, Irritant
Protease (Bromelin)	To reduce or to remove heat labile proteins (enzyme)	Irritant, Health Hazard
Protease (Ficin)	To reduce or to remove heat labile proteins (enzyme)	Irritant, Health Hazard
Protease (general), derived from the mold <i>Aspergillus niger</i>	To reduce or to remove heat labile proteins (enzyme)	Health Hazard
Protease (Papain)	To reduce or to remove heat labile proteins (enzyme)	None
Protease (Pepsin) from pig or cow stomachs	To reduce or to remove heat labile proteins (enzyme)	Irritant

Protease (Trypsin) from pig or cow pancreas	To reduce or to remove heat labile proteins (enzyme)	Irritant
Pyridoxine hydrochloride (vitamin B6)	To facilitate fermentation of juice and wine (fermentation aid)	Corrosive, Irritant
Silica gel (colloidal silicon dioxide)	To clarify wine or juice	Irritant, Health Hazard 
Silicon dioxide	To control foaming, fermentation adjunct (defoaming agent)	Irritant, Health Hazard 
Sodium carboxymethyl cellulose	To stabilize wine by preventing tartrate precipitation	None
Sorbic acid and potassium salt of sorbic acid	To sterilize and to preserve wine; to inhibit mold growth and secondary fermentation	Irritant
Sorbitan monostearate	To control foaming, fermentation adjunct (defoaming agent)	None
Soy flour (defatted)	Yeast nutrient to facilitate fermentation of wine	None
Sulfur dioxide	To sterilize and to preserve wine	Acute Toxin, Corrosive 
Tannin	To adjust tannin content in apple juice or in apple wine, To clarify or to adjust tannin content of juice or wine (other than apple)	Irritant
Tartaric acid	To correct natural acid deficiencies in grape juice/wine and to reduce the pH of grape juice/wine where ameliorating material is used in the production of grape wine	Corrosive, Irritant
Thiamine hydrochloride	Yeast nutrient to facilitate fermentation of wine	None
Urease	To reduce levels of naturally occurring urea in wine to help prevent the formation of ethyl carbamate To reduce or to remove heat labile proteins (enzyme)	None
Yeast, autolyzed	Yeast nutrient to facilitate fermentation in the production of grape or fruit wine	None
Yeast, cell wall/membranes of autolyzed yeast	To facilitate fermentation of juice/wine	None