We create chemistry

Beverage clarifiers and stabilizers

Divergan® HM – Enhancing quality

Divergan® HM is a beige, slightly hygroscopic powder produced from polyvinyl-pyrrolidone (PVP) and polyvinylimidazole (PVI) that is also known as PVP/PVI co-polymer. Divergan® HM is insoluble in water, acids, and caustic and organic solvents.

Why is Divergan® HM necessary and important?

Beverages contain dissolved phenolic compounds and metals (e.g. copper, iron, etc.) that have a negative impact on clarity, sensory qualities and color. Divergan® HM removes these compounds while enhancing flavor and colloidal stability and avoiding metallic bitterness, aging and oxidative changes. Divergan® HM is completely removed during filtration.

Metal reduction in alcoholic beverages*

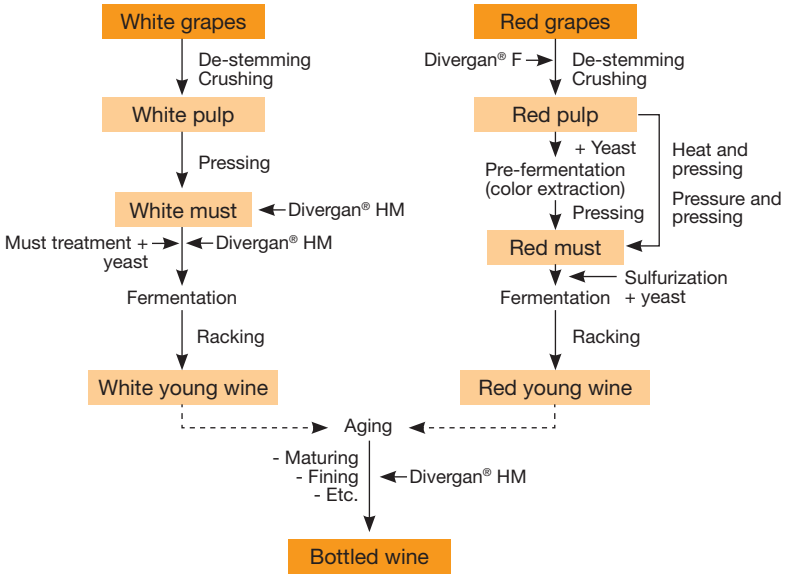
*Depends on pH value, dosage, temperature, matrix of the beverage etc.

270 million hectoliters of wine are produced world-wide each year.

80 percent of the world's wine production is produced by 10 countries.

2 billion hectoliters of beer are consumed world-wide each year.

When to use Divergan® HM during winemaking process



How do metals find their way into wine and beer?

Many metallic ions (copper, iron, aluminum, nickel, zinc, lead, chromium, manganese, cadmium and arsenic) can be found in raw materials such as grapes for wine production or malt and hop products for the beer manufacturing process. In addition, copper, for example, is deliberately added to some wines in order to eliminate sulfide taint ("Böxer"). In beer, a metal uptake (e.g. iron) can also be caused by filtration aids such as kieselguhr. Metals result in a metallic and/or bitter after taste in wines and beers. They also influence ageing and oxidation processes which have a negative sensory impact.

Divergan® HM is able to reduce the amount of unwanted metal ions, therefore contributing to the safety of the final product.

How Divergan® HM is applied

in beer:

For a 100 % malt-based beer, a Divergan® HM dosage in the range of 40 – 60 g/hL can be recommended.

Beers with up to a 30 % malt adjunct portion generally require a lower Divergan® HM dosage. Normally 30 – 50 g/hL are sufficient.

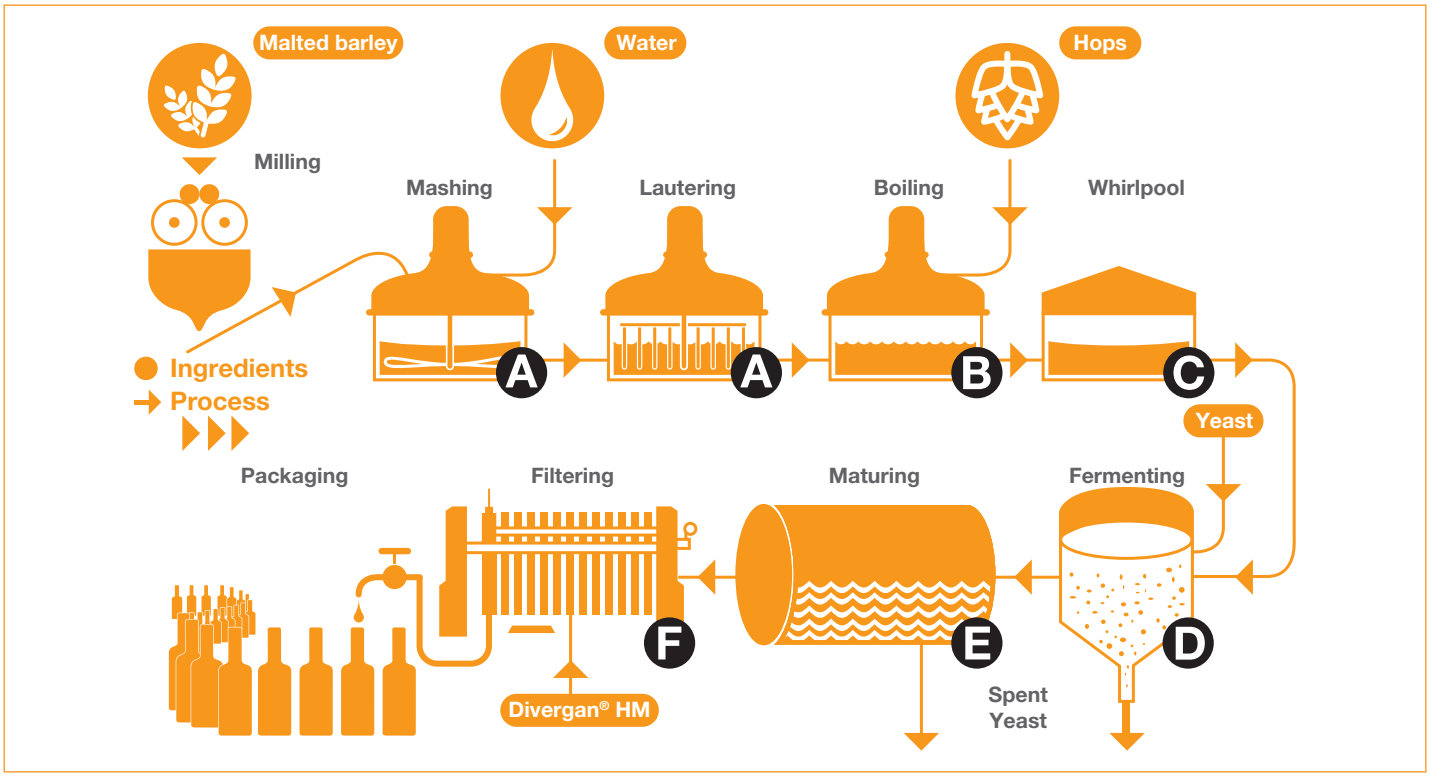
The dosage depends on many factors, e.g. raw material quality, brewing process, cellar technology, pre-clarification, other stabilization agents and targeted shelf-life.

in wine:

Divergan® HM is dissolved in the amount of wine to be treated. After 30 minutes swelling time during which it is stirred, the Divergan® HM suspension is poured into the treatment vat and mixed. The Divergan® HM should be removed either by filtration or centrifugation within 24 hours.

A maximum dosage of 50 g/hL below 20°C is recommended. Generally a dosing rate of 20 – 50 g/hL of Divergan® HM is sufficient to achieve optimal results.

When to use Divergan® HM during the brewing process



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