Vintage catalogue
Enzymes

All SIHAZYM enzymes are purified granulates, which have several advantages over liquids such no loss of activity, cleaner wine aromatics and a long shelf life.

SIHAZYM Claro
SIHAZYM Claro is a pectolytic enzyme preparation specifically for juice clarification, settling and flotation. The enzyme’s activity is exceptionally high, resulting in rapid depectinisation of juices even at low temperatures. Free-run juice yield is higher and lower juice NTU is achieved in rapid time. The purification of this product to remove cinnamyl esterase means that fruit-suppressing volatile phenols cannot be formed, leading to better fruit expression in the wine.

SIHAZYM Extro
SIHAZYM Extro is a special pectolytic and skin extraction enzyme preparation with very high activity, specifically formulated for red grape processing and skin extraction in reds and whites. Polysaccharide release is another feature of SIHAZYM Extro, which contributes to wine mouthfeel, mid-palate weight and colour stabilisation. Fruit expression is increased, in addition to enhanced colour and tannin extraction, improved pressing and wine filterability is also improved. SIHAZYM Extro is purified of both cinnamyl esterase (to remove the pathway for Brettanomyces substrate formation) and anthocyanase (for increased colour). SIHAZYM Extro is also able to replace traditional cold soaking for colour extraction in a fraction of the normal time.

SIHAZYM Uni
SIHAZYM Uni is a generic skin extraction and pectolytic enzyme preparation. It can be used on either white or red grapes, for juice clarification, settling or maceration. It is purified of cinnamyl esterase activity for cleaner fruit expression in white wines and the removal of phenolic acid production for Brettanomyces to metabolise. SIHAZYM Uni provides a unique option for winemakers who wish to use only one enzymatic preparation, or for those seeking skin extraction and clarification/settling capability.

SIHAZYM Fine
SIHAZYM Fine is a multi-function purified enzyme, containing both pectolytic and β-glucanase activities. It can be used to enhance lees autolysis for increased mannoprotein extraction from yeast cell walls and thus mouthfeel and complexity, and also to improve wine filterability, and so is highly suitable for wines destined for bâtonage. SIHAZYM Fine is an essential component of wine production when Botrytis rot is found in the grapes, since if untreated the glucans released into the wine by this mould will lead to poor settling of both juice and wine during maturation, reduced wine quality and significant filtration problems at bottling. SIHAZYM Fine can also be used for cross-flow and filtration membrane regeneration where chemical CIP does not increase flow rates. It is purified of cinnamyl esterase.

CONZYM Pex Uni
CONZYM Pex Uni is a unique purified liquid pectolytic and maceration enzyme preparation. It can be used on both white juice and red must. If some skin extraction of white skins is desired ConZym Pex Uni is perfectly suited. It offers the convenience of a liquid enzyme format but, unlike other liquid enzyme formulations, it is purified of cinnamyl esterase. In both whites and reds this means stronger fruit expression, a cleaner aromatic profile, increased free-run volumes and improved filterability. The removal of cinnamyl esterase confers a reduced risk of the Brettanomyces marker chemicals 4-ethyl phenol and 4-ethyl guaiacol, and improves fruit expression. Colour extraction from the skin is also enhanced by using ConZym Pex Uni.
SIHA yeast are produced by Lallemand™, with strain exclusivity to SIHA. SIHA yeasts focus on strong fermentation kinetics, aromatic expression, colour retention (in reds) and enhanced mouthfeel.

**SIHA 3**
Rheinhessen isolate. Aromatic expression, for fruit-forward and bâtonage wines (suitable for lees ageing). Used on all varietals, including premium Chardonnay for varietal expression.

**SIHA 4**
German isolate for tirage. For secondary fermentation with enhanced mouthfeel.

**SIHA 7**
Aromatic varietal white wines. A Riesling isolate from the Mosel, delivering a rich mouthfeel, pristine varietal aromatics and moderate fermentation ester production for excellent varietal expression.

**SIHA 8 Burgunder**
A Burgundian isolate with strong fermentation kinetics, high alcohol tolerance and high killer activity. Delivers enhanced mouthfeel with increased tannin structure and fruit-forward wines. Excellent for restarts.

**SIHA 10 Red Roman**
Moderate fermentation kinetics for increased extraction, high alcohol tolerance with enhanced mouthfeel through polysaccharide release for textured red wines. Simply outstanding.

**SIHA WhiteArome**
Selected for intense aromatic expression of both varietal and fermentation aromas. Produces exceptionally fruit-expressive wines and is useful where extra aromatic intensity is required.

**SIHA CryArome**
A cold-fermenting strain for thiolic varieties where both clean and strong varietal aromatic expression and fermentation ester production are desired.

**SIHA VarioFerm**
3 *Saccharomyces* strains for increased aromatic and mouthfeel complexity. Used on reds and whites alike to deliver mid-palate weight and complexity. Suitable for all varietals. Moderate fermentation kinetics.

**SIHA Element**
A Riesling isolate from the biodynamic Pechstein vineyard in the Pfalz. Very strong terpene release for floral prominence and varietal aromatic expression. Excellent on terpenic varietals.

**SIHA Rubino Cru**
A hybrid strain selected for fruity aromatics, complexity and red wine colour retention. Delivers fruit-forward wines with superior colour and a softer structure.

**SIHA Finesse Red**
Selected for maximal wine colour retention in low anthocyanin varieties. POF for increased fruit expression and reduced *Brettanomyces* risk. Very elegant fruit-forward wines with a silky tannin structure.

**Cider**
Several SIHA yeast strains are suitable for cider production, such as SIHA 3, CryArome, and WhiteArome. For cider fermentation nutrients, see overleaf.
SIHA SpeedFerm
SIHA SpeedFerm is a yeast rehydration nutrient. Of all the nutrition-related actions a winemaker can take to secure a fermentation and increase wine quality, using SpeedFerm is the best. SIHA SpeedFerm is made from inactive yeast cells and contains vitamins, co-factors, minerals and amino acids – but no DAP. SIHA SpeedFerm enhances aromatic expression through the provision of enzymatic co-factors, and also contains sterols which provide intrinsic resistance to the ethanol toxicity generated as the fermentation proceeds, resulting in a cleaner and faster fermentation completion.

SIHA ProFerm H⁺²
A complex nutrient combining yeast hulls and extract (80 %) and DAP (20 %), SIHA ProFerm H⁺² provides sterols for increased alcohol tolerance, in addition to the detoxifying effect of genuine yeast hulls, yeast-derived micronutrients and enzymatic co-factors, and inorganic nitrogen as a nutritional supplement. SIHA ProFerm H⁺² is intended for use during the early to mid stages of primary fermentation, either when the must is suspected of being nutritionally deficient (as in the case of highly-clarified juice), as a general fermentation nutrient, or when H₂S production is detected.

SIHA ProFerm Fit
SIHA ProFerm Fit is a complex nutrient containing genuine yeast hulls (for nutrition and detoxification) enriched with glutathione, but no DAP. It is specifically aimed at maximising wine quality through both aromatic and colour protection, and is added in the final third of fermentation. The use of SIHA ProFerm Fit not only sustains aromatic production and colour, it protects it throughout the life of the wine and extends wine shelf life.

SIHA ProFerm Red
SIHA ProFerm Red is a 100 % organic nutrient containing specially treated yeast cell wall extracts and no DAP. It is formulated to contain a high concentration of polysaccharides and amino acids, and is added in the first third of fermentation. The use of SIHA ProFerm Red increases the yeast cell count at the beginning of alcoholic fermentation, improves colour stabilisation through polysaccharide bridging and increases wine aroma.
Speciality bentonite

SIHA has long been recognised as the global leader in the production of high quality speciality bentonites. Unlike regular bentonites, SIHA products exhibit strong lees compaction, resulting in much higher wine recovery volumes. It actually costs more to use a cheaper Bentonite with diffuse lees because of the wine loss. A higher addition rate is required, yet SIHA Bentonite will still save you money through greater compaction and increased wine recovery.

SIHA Active Bentonite G

The industry leader. SIHA Active Bentonite G is a granular, purified, pharmaceutical grade calcium Bentonite. With the smallest lees volume available, SIHA Active Bentonite G represents excellent value for money. The use of SIHA Active Bentonite G saves the winemaker money over the use of conventional bentonites through its significantly greater lees compaction, resulting in the highest wine returns on racking. SIHA Active Bentonite G is also very fast to prepare, at just 2 hours using hot water and mechanical stirring. The sedimentation rate is very fast (see chart below, right), so the wine can be racked rapidly if required. The lower swelling capacity of SIHA Active Bentonite G also means that wine aroma is preserved. SIHA Active Bentonite G is highly recommended for use during juice flotation, or can be used on wine.

SIHA Puranit UF

SIHA Puranit UF is specifically formulated for cross-flow filtration applications, and can be used for in-fermentation additions. Its sand-free formulation was developed directly to service wines where cross-flow filtration will be used, to help protect cross-flow membranes, pumps and pipework from the abrasive sand present in most bentonites.

Rehydration procedure for SIHA Active Bentonite G to minimise water addition:
1. If planning to decant supernatant to minimise water addition, increase stabilisation dosage by 5-10 % to account for losses of fines.
2. Rehydrate @ 5-10 % with stirring. If 2 h preparation is desired, use hot water and constant stirring.
3. Use directly or allow the slurry to settle for 6 - 12 hours (overnight if possible).
4. If settled, decant and discard any liquid above the settled slurry (see image above) to remove excess water and bentonite fines.
5. The rehydrated slurry can now be added to the wine or juice using a venturi.
6. Ensure complete mixing of the tank (e.g. submersible pump) for at least 60 minutes, or longer for larger tanks. This is critical.
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<td>30 – 60 mL/1000 kg</td>
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**Primary characteristics**
- Yeast rehydration nutrient made from inactivated yeast
- Contains no DAP
- Enzymatic co-factors
- Micronutrients
- Improved aromatics
- Toxin removal
- H₂S suppression

**Main applications**
- SIHAZYM Uni
  - White skin extraction and/or clarification & settling
  - Red skin extraction and clarification
  - Micronutrients
  - Improved aromatics
  - Increased alcohol tolerance
  - H₂S suppression

- SIHAZYM Claro
  - White skin extraction and/or clarification & settling
  - Red skin extraction and clarification
  - Micronutrients
  - Improved aromatics
  - Inorganic nitrogen
  - H₂S suppression

- SIHAZYM Fine
  - White skin extraction and clarification
  - Red skin extraction and clarification
  - Micronutrients
  - Improved aromatics
  - Aroma protection
  - H₂S suppression

- SIHA SpeedFerm
  - Yeast rehydration nutrient made from inactivated yeast
  - Contains no DAP
  - Enzymatic co-factors
  - Micronutrients
  - Improved aromatics
  - H₂S suppression

- SIHA ProFerm H+
  - Yeast-derived nutrient enhanced with polysaccharides for colour stabilisation and aroma expression
  - Contains no DAP
  - Enzymatic co-factors
  - Micronutrients
  - Improved aromatics
  - H₂S suppression

- SIHA ProFerm Fit
  - Yeast-derived nutrient enhanced with polysaccharides for colour stabilisation and aroma expression
  - Contains no DAP
  - Enzymatic co-factors
  - Micronutrients
  - Improved aromatics
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