

NET CONTENTS 20 litres when packed

Henry Manufacturing Limited

HML 32

**A Fungicide for the Control of Botrytis and Powdery Mildew on Grapes
An Adjuvant to improve coverage of fungicides on Grapes**

ACTIVE INGREDIENTS: contains 157 g/litre fatty acids (potassium salts) and 254 g/litre potassium bicarbonate in the form of a soluble concentrate

Registered pursuant to the ACVM Act 1997, No P8633.
Approved pursuant to the HSNO Act 1996, Approval Code HSR 101043
See www.foodsafety.govt.nz for registration conditions.
See www.epa.govt.nz for approval controls

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LOW TOXICITY

Harmful – May cause eye irritation. Avoid contact with the eyes.

Designed for biocidal action against fungous diseases. Avoid contamination of any water supply with chemical or empty packaging.

PRECAUTIONS

Keep out of the reach of children.

Avoid eye and skin contact and inhalation of dust and spray mist.

Wear gloves and goggles while mixing and spraying. Do not eat, drink or smoke while using.

Remove protective clothing and wash hands and exposed skin before meals and after work. Wash protective clothing daily after work.

Storage & Disposal: Store in original packaging, tightly closed, in a cool dry, well ventilated place. Triple rinse used container, recycle or dispose in an approved landfill.

FIRST AID

If swallowed, do not induce vomiting. For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor if feeling unwell.

If splashed in the eyes, flush with plenty of water for at least 15 minutes. If contact with skin and hair wash with plenty of soap and water.


Marco Zinzler
Manager, Approvals Operations
Regulation and Assurance





DIRECTIONS FOR USE

It is an offence to use this product on animals.

CONTROL OF BOTRYTIS AND POWDERY MILDEW ON GRAPES

HML32 has proven efficacy against botrytis and powdery mildew. Powdery mildew is a known pre-cursor to poor botrytis control.

In all situations where **HML32 is used for preventive control of powdery mildew**, include wettable sulphur from bud burst to veraison. Where there is a history of powdery mildew, it is also recommended to include copper to assist in eradicating any emerging infection.

Where **HML32 is used specifically for eradication of powdery mildew infections**, include copper at a rate of at least 45gm metallic copper/100l and potassium bicarbonate at a rate of 300gm/100l – see notes on website.

HML32 will improve the efficacy of wettable sulphur for erinose mite control.

APPLICATION

For cover sprays **used for prevention** of botrytis and powdery mildew, apply **HML32** with sufficient water to obtain full coverage of bunches and leaf canopy. When applied solely for botrytis control, target the bunch zone. Alternating the application direction assists with better coverage.

For sprays **used either for eradication of powdery mildew or maturity enhancement** in the bunch zone, target that area alone. Important, application is different to preventive sprays – see notes on website.

HML32's mode of action is contact therefore efficacy will be optimised by viticultural practices that assist spray coverage such as well calibrated sprayers, sprayer speeds and adequate bunch exposure.

Warning: As with many products, avoid spraying foliage if the vines are severely water stressed.

RATES OF USE

Add 1.25 litres of **HML32** per 100 litres of water.

WATER RATES

For cover sprays, apply to the point of runoff (At least 12l/100m row at full canopy or at least 8l/100m row for bunchline).

For eradication or maturity enhancement, targeting the bunch zone, use a rate of at least 9l/100m row, spraying in one direction, then spray in the reverse direction a short time later – see notes on the website. Higher water rates will give better coverage and better disease control. Concentrate spraying is not recommended.

MIXING INSTRUCTIONS

HML32 will dissolve easily. Three quarters fill the spray tank, with agitators running. Slurry mix **HML32** in its pail, and add through top filter basket or venturi, after other pesticides have been added (see compatibility below), and then continue to fill with water. Do not leave standing without agitation for long periods.

TIME OF APPLICATION

Powdery Mildew preventive control: **HML32** is recommended to be applied at 10-14 day intervals from bud burst through to veraison. Where a major rain event occurs during a period of growth replace the cover as soon as practicable.

Botrytis control: **HML32** is recommended to be applied at 10-14 day intervals from pre-flowering to veraison (see note below) or at strategic growth stages such as flowering, pre-bunch closure and veraison.

Specifically for flowering, it is recommended that two applications be made, the first immediately pre-flowering and the other at 80% cap fall. As a matter of good practice, avoid applications while inflorescences are open.

Maturity Enhancement in the Post-Veraison period (defined as 12 brix or more). This strategy is best suited to moderate and heavy cropped vines. **HML32** should be applied no more than twice at the BUNCH LINE ONLY – see notes on application above. **HML32** must be the **only** material in the spray tank. Best results are obtained by targeting 12-14 brix as the first application, then the second application 10 days later.

Applications thicken skins, intensify colour as well as bring the harvest date forward. There is likely to be some reduction in yield due to mild desiccation, also defoliation of sprayed leaves, particularly if vines are subject to water stress - see notes on website.

COMPATIBILITY



HML 32 is an alkaline material. It is normally compatible with wettable sulphur, further additions of potassium bicarbonate, and proprietary copper hydroxides and cuprous oxides (Do not use copper sprays in the flowering period if there is a risk of slow drying). Do not add other pesticides or materials unless they have been specifically identified as being compatible. **HML 32**, when mixed in hard water (high in dissolved mineral cations) may have mixing issues. **Where growers have hard water or are combining other additives (such as trace elements), it is recommended that a small premix (a jar test) is made to determine compatibility.**

WITHHOLDING PERIOD:

3 days before harvest

1 day before harvest when used in a 0.5% solution (as an adjuvant)

Note: These are voluntary withholding periods that are not residue based (MRL based) to cover off the rare occurrence of an off-flavour on the fruit. This off-flavour has never been detected in wines.

Growers should refer to NZ Winegrowers Vineyard Spray Schedule, before use.

HML 32 can be applied on certified organic properties as a fungicide. Growers need to confirm with their certifiers before use.

Exclusion of Liability: Please Read

To the extent permitted by law, buyers and/or users of the goods accept that Henry Manufacturing Limited as the manufacturer and distributor, nor any other distributor have any liability or responsibility whatsoever for any loss, damage or injury whether in contract or tort, whether direct, indirect or consequential howsoever arising in connection with the supply of these goods.

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