



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

August 31, 2017

Jacob S. Moore
Regulatory Consultant
Agent for Henry Manufacturing Limited
c/o Technology Sciences Group, Inc.
712 Fifth Street, Suite A
Davis, CA 95616

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling and Formulation
Amendment – Acceptable Label and CSF Amendments to Revise the Ingredient
Percentages
Product Name: HML32
EPA Registration Number: 88573-2
Application Date: 05/04/2017
OPP Decision Number: 532698

Dear Mr. Moore:

The amended labeling and Confidential Statement of Formula (CSF) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, are acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

Please note that the record for this product currently contains the following acceptable CSF:

- Basic CSF dated 05/04/2017

Any CSFs other than that listed above are superseded/no longer valid.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Alex Horansky by phone at (703) 347-0128 or via email at horansky.alex@epa.gov.

Sincerely,

A handwritten signature in blue ink, reading "Andrew C. Bryceland". The signature is fluid and cursive, with the first name "Andrew" and last name "Bryceland" clearly legible.

Andrew Bryceland, Team Leader
Biochemical Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)
Office of Pesticide Programs

Enclosure

HML32



(For Organic Production) (For Use in Organic Production) (Can be used in organic production)
[OMRI Listed™ logo]

ACTIVE INGREDIENT:

Potassium Bicarbonate22.7%

OTHER INGREDIENTS:77.3%

TOTAL:100.0%

KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If swallowed	<ul style="list-style-type: none">• Call poison control center or doctor immediately for treatment advice.• Have person drink several glasses of water.• Do not induce vomiting.• Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

See (back) (side) panel for additional precautionary statements and directions for use.

EPA Reg. No.: 88573-2

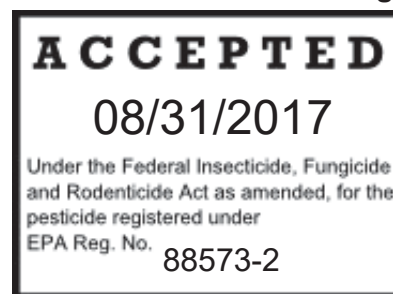
EPA Establishment No.: XXXXX-XX-XX

(Batch No. / Lot No.: XXX)

Manufactured for:

Henry Manufacturing Limited
PO Box 12015 Ahuriri, Napier, 4144, New Zealand
+64 27 2941490
info@henrymanufacturing.co.nz

Net Weight:



(Information regarding the contents and levels of metal in this product is available on the internet [http:// www.aapfco.or/metals.html](http://www.aapfco.or/metals.html))

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals - CAUTION. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE): Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks. Follow the manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations: Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment (PPE), and restricted entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hour.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, waterproof gloves, shoes plus socks.

Do not apply this product through any type of irrigation system.

Product Information: HML32 is a contact fungicide for the control of Botrytis and Powdery Mildew. It works by rapidly changing the pH on leaf surface, creating a strong osmotic imbalance between microscopic organisms and the surrounding solution on the plant surfaces. This severely disrupts spores and fungi cell walls. HML32 also contains an adjuvant which improves coverage of other compatible fungicides. It works by lowering the surface water tension thereby allowing better spread of other fungicide particles. At times, it provides a level of attraction of fungicidal spores to those materials as well some UV protection and rain fastness.

Integrated Pest Management: Integrate HML32 into an overall pest management strategy whenever fungicide use is necessary. Follow practices known to reduce disease development. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location.

Pre-Harvest Interval: HML32 can be applied up to and including the day of harvest, except as noted. See Application Rates table for crop-specific application frequency information.

MIXING INSTRUCTIONS

Agitate or stir HML32 within its container to bring all materials into suspension. Fill the spray tank three quarter with water and activate the agitators. If tank mixing with other fungicides, add and thoroughly mix in other fungicides then slowly add HML32 to the top of the tank. It will dissolve easily. Complete filling with water. Use spray mixture immediately. Do not allow spray mixture to stand overnight or for prolonged periods without good agitation.

APPLICATION AND TIMING

Apply HML32 using conventional spray equipment to the point of saturation. The amount of spray solution to apply will vary depending on the type of crop. Most crops will require up to 100 gallons of spray per acre. If disease appears shorten the spray interval to 7 days until conditions are no longer suitable for disease development and/or disease is suppressed. Do not use concentrate spraying. Do not apply to foliage when plants are under significant water stress. This product can also be applied post-harvest to remaining foliage to decrease overwintering inoculum.

COMPATIBILITY

Consult your Henry Manufacturing Limited representative for more information on HML32 compatibility with pesticides, surfactants and fertilizers. Consult specific product labels for additional information or restrictions concerning tank mixing. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. It is always advisable to conduct a spray compatibility test when you plan to mix this product with another product. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry formulations first, and then flowables, and then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding products to the spray tank.

Application Rates:

Crops	Disease	gal/100 gal of water	Notes
Grapevines (Wine)	Prevention: Powdery Mildew	1.25 gallons	<p>Apply with wettable sulfur.</p> <p>Apply in sufficient water at 14 day intervals from bud burst to veraison, Reapply after any major rain event. Where there is a history of powdery mildew include a copper fungicide product to assist in controlling any emerging infection. Apply sufficient spray to obtain full coverage of bunches and leaf canopy. Alternating the application direction assists in better coverage.</p>
	Eradication: Powdery Mildew	1.25 gallons	<p>Eradication treatments are different from preventative cover sprays. Do not apply with wettable sulfur for eradication treatments.</p> <p>Include a copper fungicide product to deliver a metallic copper rate of at least 6 oz/100 gals of water (0.045% solution). Include additional potassium bicarbonate product at a rate of 2/5 lbs/100 gals of water (0.3% solution). See Technical bulletin for application instructions.</p>
	Prevention: Gray Mold (<i>Botrytis cinerea</i>)	1.25 gallons	<p>Powdery mildew is a major precursor disease leading to Botrytis infection.</p> <p>Include the addition of a copper fungicide product with HML32 and wettable sulfur. When applied solely for Botrytis control, target the bunch zone. Alternating the application direction assists with better coverage.</p>
	End of season: Eradication of maturing Chasmothecia (the fruiting body of	1.25 gallons	<p>Chasmothecia forms predominately in the upper canopy toward the end of the season. Ascospore release from chasmothecia can be a major source of powdery mildew inoculum in the following season, including the</p>

Crops	Disease	gal/100 gal of water	Notes
	Powdery Mildew)		<p>flowering period.</p> <p>Eradication treatments are different from preventative cover sprays. Target the canopy not the fruit zone.</p> <p>Do not apply with wettable sulfur for eradication treatments.</p> <p>Include a copper fungicide product to deliver a metallic copper rate of at least 6 oz/100 gals of water (0.045% solution). Include additional potassium bicarbonate product at a rate of 2/5 lbs/100 gals of water (0.3% solution). See Technical bulletin for application instructions.</p>
Asparagus	<p>Gray Mold (<i>Botrytis cinerea</i>)</p> <p>Powdery Mildew</p>	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.
Berries, including: Blackberry Blueberry Bushberry Caneberry Cranberry Currants Elderberry Gooseberry Huckleberry Loganberry Raspberry	<p>Gray Mold (<i>Botrytis cinerea</i>)</p> <p>Powdery Mildew</p>	1-2	Apply during early bloom and repeat on a 7 to 14 day interval or as needed.
Bulb Vegetables, including: Garlic Leeks	<p>Botrytis Leaf Blight</p> <p>Botrytis Neck Rot</p> <p><i>Botrytis squamosa</i></p>	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.

Crops	Disease	gal/100 gal of water	Notes
Onions Shallots	<i>Botrytis</i> spp.		
Citrus Fruits, including: Calamondin Citrus citron Citrus hybrids Grapefruit Kumquat Lemon Lime Mandarin Orange, sour and sweet Pummelo Satsuma mandarin	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.
Cucurbit Vegetables, including: Cucumbers Melons Squash Zucchini	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.
Fruiting Vegetables, including: Eggplant Okra Pepper Tomato Tomatillo	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2–	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.
Leafy Vegetables, including:	Gray Mold (<i>Botrytis cinerea</i>)	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as

Crops	Disease	gal/100 gal of water	Notes
Broccoli Cabbage Celery Collards Lettuce Spinach	Powdery Mildew		needed.
Legumes, succulent and dried, including: Field beans Lentils Peas Peanuts Soybeans	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.
Passionfruit	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed.
Pome Fruits, including: Apple Crabapple Loquat Mayhaw Pear Pear, oriental Quince	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Apply at early and late bloom. For extended bloom periods, apply on a 7 – 14 day interval.
Root, Tuber and Corm Vegetables, including: Beets Carrots Cassava Ginger Potato	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.

Crops	Disease	gal/100 gal of water	Notes
Radish Sugar beets Sweet potato Yams			
Stone Fruits, including: Apricot Cherry, sweet and tart Nectarine Peach Plum Plumcot Prune (fresh)	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.
Tree nuts, including: Almond Beech nut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert((hazelnut) Hickory nut Macadamia nut Pecan Walnut, Black and English	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Begin application when conditions are conducive to disease development. Repeat on 7 to 14 day intervals or as needed.
Strawberries	Gray Mold (<i>Botrytis cinerea</i>) Powdery Mildew	1-2	Begin application at or before flowering. Repeat on 7 to 14 day intervals or as needed up until harvest.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in a dry place out of direct sunlight and away from heat sources. Keep from overheating or freezing.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling:

(For containers ≤ 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

(For containers ≥ 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

OPTIONAL LABEL CLAIMS

- Biofungicide.
- No pre-harvest interval (PHI).
- Low Reentry Interval (REI).
- Contact fungicide for the control of Botrytis and Powdery Mildew.