



# Sombbrero™



Manufactured Exclusively For:  
Helena Chemical Company | 225 Schilling Boulevard, Suite 300 | Collierville, TN 38017  
Manufactured by Purfresh, Inc., Fremont, CA. Product of the U.S.A. U.S. and international patents pending.

## CAUTION KEEP OUT OF REACH OF CHILDREN

**PRECAUCIÓN**—Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

**HAZARD TO HUMANS**—May cause moderate eye irritation. Avoid contact with eyes. Do not inhale mist, dust, or vapor. Avoid exposure to mist. Wash thoroughly with warm soap and water after handling.

**PERSONAL PROTECTIVE EQUIPMENT**—All warnings from all products must be adhered to when tank-mixing Sombbrero with other products. As with all agriculture protection products, **EYE PROTECTION** is required to diminish the risk of injury. A **DUST/MIST FILTERING RESPIRATOR** is recommended in the event of possible exposure to mist during application.

**FIRST AID**—**Eye exposure:** Flush thoroughly with water for at least 15 minutes. **Skin exposure:** Wash with mild soap and water. **Inhalation:** Remove to fresh air. **Ingestion:** No adverse effect is expected. If ingested seek medical advice.

**STORAGE AND DISPOSAL**—Store in original containers only, in a dry environment. Do not store in direct sun. Keep container closed when not in use. Avoid storing in freezing temperatures and temperatures above 110°F (43°C). Product must be disposed of in accordance with applicable federal, state, and local laws. Dispose/recycle empty container in accordance with applicable federal, state, and local laws.

## SHAKE WELL BEFORE USING

**Net Contents: 2.5 Gallons (9.46L) Net Weight: 35 lbs (15.9 kg)**

## NONPLANT FOOD INGREDIENT

Contains: 62.5% calcium carbonate by weight  
37.5% inert ingredients by weight

**NOTICE**— Helena Chemical Company warrants that this product conforms to the chemical description on this label. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as use contrary to label directions, abnormal conditions of use, weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Helena Chemical Company. In no case shall Helena Chemical Company be liable for consequential, incidental, special, or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. EXCEPT AS EXPRESSLY STATED ABOVE, HELENA CHEMICAL COMPANY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE. Helena Chemical Company shall not be liable for losses or damages resulting from handling or use of this product unless Helena Chemical Company is promptly notified of such loss or damage in writing. In no case shall Helena Chemical Company be liable for consequential or incidental damages or losses. **LIMITATION OF REMEDIES**— The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories) shall be limited to, at Helena's election, one of the following: (1) Refund of purchase price paid by buyer or user for product bought, or (2) Replacement of amount of product used.

Label No. 108638 (0111)

**TANK MIX WITH WATER. DO NOT SPRAY TO RUNOFF.  
APPLY WITH SUFFICIENT PRESSURE TO ACHIEVE UNIFORM COVERAGE.**

**READ AND UNDERSTAND THE FOLLOWING BEFORE USING THIS PRODUCT**

**General Information** – Sombrero assists in the reduction of damage on produce and plants caused by solar radiation. When applied to plants, Sombrero forms a dry, semi-opaque film that acts as a barrier to harmful sunlight. Sombrero should be diluted in sufficient water to cover and adhere to all surfaces of the target plant without causing runoff. Wait until dry before reapplying Sombrero. The use of overhead irrigation will diminish the performance of Sombrero.

**Compatibility** – A JAR COMPATIBILITY TEST SHOULD BE DONE BEFORE TANK MIXTURE APPLICATIONS ARE CONDUCTED. If tank mixtures are used, adhere to restrictions regarding rates, label recommendations, and precautions on all labels. Do NOT combine Sombrero in the spray tank with pesticides, surfactants, products that are not tolerant to high-pH solutions, or fertilizers (including phosphate fertilizers) unless your prior use has shown the combination to be physically compatible, effective, and noninjurious under your conditions of use. Physical incompatibility may reduce the protection Sombrero is able to provide. Before using any tank mix (fungicides, insecticides, adjuvants, or additives), test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

NOT RECOMMENDED for use with, or prior to, summer oil applications, or other products that may interfere with post-harvest removal.

**Compatibility with Adjuvants** – Sombrero is compatible with most adjuvants, such as non-ionic, methylated seed oil (MSO), and sticker spreader-type surfactants. When using a spreader and/or stickers with Sombrero, a post-spray removal test should be performed BEFORE spraying the fruiting structure of the crop.

**Mixing** – MAINTAIN A CONSTANT AGITATION THROUGHOUT MIXING AND APPLICATION. When using a non-agitating sprayer tank, such as handheld and backpack sprayers, shake the tank on a regular basis to keep the material in suspension.

**Application Instructions** – The rate recommendations on the Sombrero label reflect the amount of product that should be applied uniformly over an acre (hectare) of ground on a broadcast basis. Initial applications should be made at the highest recommended rates. To optimize solar protection under conditions favoring high solar stress, use the high rates and the shortest application intervals. Apply Sombrero in sufficient water to obtain adequate coverage of foliage and fruiting structures. Application water volumes vary with crop, method of application, and amount of plant growth. If applying Sombrero with a ground sprayer, water volumes typically range from 25–150 gallons/acre (250–1,500 liters/hectare). Water volumes for aerial application typically range from 5–20 gallons/acre (50–200 liters/hectare). NEVER SPRAY TO THE POINT OF RUNOFF, as resulting coverage will be poor. To provide maximum protection, applications should be made PRIOR to conditions of high solar stress. Aerial applications can be made for those crops or conditions that do not permit application using ground equipment. Do NOT apply by chemigation.

**Post-Harvest Removal** – Generally, Sombrero can be removed by hand or on a commercial packing line that includes a water-filled dump tank or spray bar (water pH adjusted to 5–6) followed by a brush section for mechanical removal.

CROP(S)	SOMBRERO	APPLICATION GUIDELINES
<b>Trees (Fruit &amp; Nuts)</b> Including, but not limited to, almonds, apples, avocados, cherries, citrus, mangoes, pears, pistachios, plums, pomegranates, and walnuts.	2–3 gal./acre (20–30 l/ha)	Always apply first application 3–10 days prior to a solar-stress event for optimum performance. In sensitive crops, such as pome fruits, always ensure that applications are made prior to fruit size reaching 3/4 inch (19 mm). Subsequent applications should be made every 14–28 days as needed. In nut crops, always ensure that early developmental stages are treated. For crops that must be washed, always consult your fieldman for program recommendations.
<b>Vegetables &amp; Cotton</b> Including, but not limited to, cotton, eggplant, garlic, melons, peppers, and tomatoes.	1–2 gal./acre (10–20 l/ha)	First application should be made at or just after full bloom. Repeat applications should be made every 14–28 days or immediately after first harvest, or as needed. Inspection of fruit should be made following any heavy rain event to determine if reapplication is necessary. Avoid using a sticker on produce that will be fresh packed.
<b>Vines, Berries, &amp; Small Trees</b> Including, but not limited to, blueberries, figs, raspberries, and wine grapes.	1–3 gal./acre (10–30 l/ha)	Apply prior to sensitive periods in berries and small trees. In wine grapes apply when berries reach 0.25 inch (6 mm) in diameter (pea-size); apply a second application at veraison. If needed, apply a third application 21–28 days later. Not recommended for table grapes unless being used for cooling. For cooling plants, apply one application prior to or at fruit set.
<b>Chill Unit Accumulation</b> Including, but not limited to, almonds, pistachios, stone fruit, pecans, grapes, and blueberries.	4–5 gal./acre (40–50 l/ha)	Apply one application immediately following leaf drop in the fall. The amount of Sombrero should correlate with the chill requirements of the crop; the higher the chill needs, the higher the application rate. NOTE: It is NOT recommended to use Sombrero on varieties with low chill requirements (less than 250 hours).
<b>Bud Delay</b> Including, but not limited to, almonds, pistachios, stone fruit, grapes, and blueberries.	3–5 gal./acre (30–50 l/ha)	Apply one application 2–3 weeks prior to bud break. NOTE: Do NOT apply Sombrero if buds are already breaking/swelling.
<b>Cereals &amp; Grains</b> Including, but not limited to, barley, corn, oats, rice, and wheat.	1 gal./acre (10 l/ha)	To improve crop yield and minimize damage during stressful periods, apply product at or near flag leaf in grains and rice. In corn crops, applications should be made during or following tassling. One application should be sufficient; apply subsequent applications as needed.
<b>Transplant Protection</b> Including, but not limited to, celery, melons, peppers, and tomatoes.	0.25–1 gal./acre (3–10 l/ha)	To protect transplanted crops from solar stress, always apply product prior to, or immediately following, transplanting. For optimum performance apply every 7–14 days, or as needed to protect plants. The use of an adjuvant is recommended.
<b>Pollinator Uniformity</b> Including, but not limited to, almonds, pistachios, stone fruit, grapes, and blueberries.	3–5 gal./acre (30–50 l/ha)	Apply one application in the same manner as in the Chill Unit Accumulation application (above), but apply only to the variety that is expected to bloom prematurely.
<b>Nursery &amp; Ornamentals</b> Including, but not limited to, Japanese red maples, shrubs, and topiaries.	0.5–2 gal./acre (5–20 l/ha)	Always apply first application 3–10 days prior to a solar-stress event for optimum protection. Subsequent applications should be made every 21–28 days, or as needed. Sensitive crops being moved out of protected environments (e.g., greenhouses) should be treated prior to, or immediately following, being moved to the field.
<b>Soil Applications</b>	1–5 gal./acre (10–50 l/ha)	To lower soil surface temperatures or improve soil-available calcium levels, apply product every 28–42 days, or as needed. Monitoring of soil should be conducted to maintain plant performance.

LEGEND: gal./acre = gallons per acre l/ha = liters per hectare

