Raynox® Sunburn Protectant is designed to protect apples from sunburn browning. Under comparable environmental conditions, apple varieties vary in susceptibility to sunburn browning. For example, Cameo apples are highly susceptible to sunburn while Pink Lady apples are very tolerant. Other varieties, including Golden Delicious, Fuji, Granny Smith, Gala, Jonagold, Red Delicious and Braeburn, are intermediate in susceptibility.

**PRINCIPAL INGREDIENTS:** Contains morpholine and proprietary food grade ingredients.

### **KEEP OUT OF REACH OF CHILDREN**

#### HAZARD STATEMENTS

This chemical is considered non-hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

#### PRECAUTIONARY STATEMENTS

Observe good industrial hygiene practices. Wash thoroughly after handling this product. Wear protective clothing, chemical resistant gloves, and safety glasses.

# FIRST AID STATEMENTS

**IF SWALLOWED:** Give large quantities of water. DO NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.

**IF ON SKIN:** Take off immediately all contaminated clothing. Wash skin with plenty of soap and water/shower, if skin still feels slippery continue washing. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**IF INHALED:** If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

**IF IN EYES:** Hold eye open and rinse cautiously with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes if easy to do, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

CALL 800-892-0099 (24 HOURS) FOR EMERGENCY INFORMATION.

PRODUCT MAY SETTLE DURING EXTENDED STORAGE; AGITATE OR MIX THOROUGHLY BEFORE USE, DO NOT STORE AT TEMPERATURES BELOW 45°F OR IN DIRECT SUNLIGHT.

### **RECOMMENDATIONS FOR USE**

**TANK MIXES:** DO NOT mix **Raynox** Sunburn Protectant with fertilizers, pesticides or other agricultural chemicals.

#### Mixing:

- 1. Fill clean spray tank with ALL REQUIRED DILUTION WATER.
- 2. ALWAYS add sufficient Raynox Water Softener according to its label directions to treat the total required dilution water (Referred to as treated water). Mix thoroughly before adding Raynox. NOTE: You must know the level of hardness of your spray water supply. If your water hardness is over 180 ppm, contact your Valent Technical Representative to determine the proper amount of water softener to use. Insufficient or improper use of water softener can result in product degradation and may adversely affect product performance and fruit finish.
- 3. Continue mixing contents of tank while slowly adding 2.5 gallons of Raynox to treated water for each acre. You may dilute 2.5 gallons of Raynox in 47.5 gal. treated water (1:20 ratio) or 2.5 gallons of Raynox in up to 97.5 gal. treated water (1:40 ratio) depending on the desired spray volume to be applied per acre with your sprayer (see details below).

APPLICATIONS: Ground Application ONLY - Apply 50 to 100 gal./acre (gpa) finished spray by airblast or boom sprayer to the trees. Raynox can be applied at either 100 gpa to both sides of the rows, or at 50 gpa to only the side exposed to afternoon sun. Spraying at 50 gpa on only the side exposed to afternoon sun will provide better sunburn protection. Regardless of the spray volume used (50 gpa or 100 gpa), be sure to apply 2.5 gallons of Raynox per acre of trees. If your sprayer is calibrated to deliver 100 gpa when you spray both sides of each row, dilute 2.5 gal. of Raynox in 97.5 gal. treated water. To spray only the side of row exposed to afternoon sun, use the same sprayer calibration, but dilute 2.5 gal of RAYNOX in 47.5 gal. treated water. Shut off half the nozzles on the sprayer, and apply 50 gal of spray volume (containing 2.5 gals of Raynox) on the side of row exposed to afternoon sun. For best coverage, ground speed of sprayer should not exceed 2 MPH. Air temperature during application should not exceed 85°F. Caution: Raynox IS NOT RECOMMENDED FOR AERIAL APPLICATIONS. For aerial application use Raynox AIR.

#### When to apply:

Apple fruit surface area expands very rapidly between 7 and 9 weeks after full bloom (WAFB). Most effective sunburn protection requires the first application at 7 WAFB with a second application 7 to 10 days later. The third application should be made 3 weeks later (i.e. 11 to 12 WAFB), and a fourth application should be applied 4 weeks later (i.e. 15 to 16 WAFB) on all but a few early maturing cultivars (e.g. Gala). Apples are most vulnerable to sunburn on clear, calm days with air temperatures that are generally above 85°F and with low humidity.

# **Evaporative Cooling / Overhead irrigation:**

Raynox dries in 1 hour in most orchards. Use the same rates and timing of applications as described above. However, due to variability in humidity, canopy, and other environmental conditions, fruit treated with Raynox should be checked for dryness before making any additional spray applications or turning on evaporative cooling or irrigation systems.

**CLEAN-UP:** Clean sprayer tank and nozzles immediately after use by adding clean water to the spray tank and spraying the water through the nozzles. If any product has dried on the sprayer, it may be necessary to clean with hot water and detergent.

# REMOVAL OF RAYNOX RESIDUES FROM FRUIT

Apple packing-line bed brushes may sufficiently remove Raynox residues from fruit. However, use of a mild detergent on the brush beds will aid in removing Raynox residues.

### STORAGE AND DISPOSAL

**STORAGE:** Store in a cool, dry area at room temperature above 45°F and below 90°F. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children and livestock.

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

**Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

**PRODUCT DISPOSAL:** Wastes resulting from the use of this product must be disposed on site or in accordance with local/regional/national/ or international regulations.

#### WARRANTY AND DISCLAIMER STATEMENT

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions. Raynox Plus is a registered trademark of Valent U.S.A. LLC.

## PRODUCT OF USA

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Manufactured by PACE International LLC, Wapato, WA for Valent U.S.A., LLC



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