



**WARNING**  
**KEEP OUT OF REACH OF CHILDREN**

# HAVEN<sup>®</sup>

**SUN SCREEN**  
**ANTI-TRANSPIRANT**  
**STRESS ALLEVIATOR**

ACTIVE INGREDIENT: CONTAINS NON-PLANT FOOD INGREDIENT  
20% Cetyl alcohol, 80% Inert Ingredients

**NET CONTENTS:** ■ 20 ■ 200 ■ 1000 litres

GSHAV/217F1

**Grosafe<sup>®</sup>**

## PRECAUTIONS

**WARNING:** Causes eye irritation. May cause long lasting harmful effects to aquatic life. Do not apply directly onto or into water. Take all reasonable steps to ensure the product does not cause any significant adverse effects to the environment beyond the application area. Wash all exposed areas thoroughly after handling.

**PERSONAL PROTECTIVE EQUIPMENT:** Applicators and other handlers must wear: Clothing to prevent prolonged skin contact as needed such as long-sleeved shirt, long pants and shoes with socks. Gloves made of latex or other impervious material. Appropriate eyeglasses or chemical safety glasses. Use an appropriate respirator if irritation or other symptoms are experienced. Wash any contamination from skin or eyes immediately. Wash hands and exposed skin before eating, drinking, smoking, after work or using the toilet.

**STORAGE:** Store product in original container, tightly closed, in a cool, dry place. Keep out of reach of children, and away from foodstuffs. Avoid freezing.

Shelf life: When stored appropriately this product should show no significant degradation for two years from date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

**SPILLS AND DISPOSAL:** When dealing with spills wear personal protective clothing and equipment as described in the PERSONAL PROTECTION section. Avoid contamination of any water supply with product or empty container.

**PRODUCT DISPOSAL:** To avoid waste, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse empty container and add rinseate to the spray tank. Recycle empty container through Agrecovery (0800 247 326: www.agrecovery.co.nz). Otherwise bury in a suitable land fill. Do not reuse for any purpose.

**SAFETY DATA SHEET:** A safety data sheet is available from Grosafe Chemicals Ltd.

**FIRST AID:** If exposed or concerned get medical advice. If swallowed, give a glass or two of water but do NOT induce vomiting. If in eyes, immediately flush with plenty of water for at least 15 min. Remove contact lenses if present and easy to do after the first 5 minutes then continue rinsing. If irritation persists, get medical attention. If on skin, remove contaminated clothing immediately. Wash skin immediately with plenty of soap and water. If irritation or rash persists, get medical advice. In case of inhalation of spray remove to fresh air. Get medical attention if patient is in distress. For advice call a doctor or the National Poisons Centre (0800 764 766)

### GENERAL INSTRUCTIONS

Haven® contains long chain fatty alcohols that reflect the heat energy falling on the leaf and thereby reduce the transpiration rates, resulting in improved crop and turf quality. Apply Haven® before anticipated heat events for protection without affecting the normal gaseous exchange. Maintain coverage throughout periods of high heat.

Rate per hectare is dependent upon the amount of blossoms, fruit and foliage that needs to be covered.

Normally two to four applications during the growing season are needed to sufficiently protect most crops, with the first spray applied during bloom or early fruit set. Additional applications may be required under conditions of persistent high temperature, increased UV exposure, rain events, overhead irrigation or other circumstances that might deteriorate the coverage of crop to be protected.

**Compatibility:** Haven® is compatible with most agricultural chemicals. A jar test should be conducted to ensure compatibility.

**Mixing Instructions:** Fill spray tank to 50% capacity. Turn on agitation and add amount of Haven® required followed by the remainder of water to complete filling.

**Concentration:** The concentration of Haven® should be between 4-8ml per litre of spray solution (400-800ml/100L).

**Coverage:** Use sufficient water to achieve full coverage. Do not apply to runoff. Dwarf, semi dwarf and otherwise well-pruned trees will be easier to cover than large trees. Applications can be made to tree crops with commercial air blast or high pressure sprayers that provide enough turbulence to coat both sides of blossoms, leaves and fruit. Best coverage is typically achieved at tractor speed of 5km/hr or less when using air blast sprayers.

**Foliage dryness:** Applications to wet foliage can result in inadequate coverage.

Spray methods: Air blast, high pressure hand gun or boom sprayers provide the best coverage. Do not apply by chemigation. Do not apply in windy or gusty conditions. Calibrate spray equipment to deliver the required volume. DO NOT APPLY THROUGH OVERHEAD IRRIGATION.

**Aerial application:** Haven® applied by air will reduce heat stress and sunburn damage if sufficient coverage can be achieved. When making aerial applications take all precautions to minimise or eliminate drift. Make applications no more than 3 metres above the crop canopy unless required for aircraft safety. Avoid making applications at low humidity or increase droplet size to compensate for evaporation. Aerial application should only be used when ground application is not available.

**Reducing heat stress via reducing transpiration:** Under high ambient temperatures, Haven® reduces canopy temperatures to reduce heat and water stress. When Haven® is used, many crops have shown improved fruit colour, less russetting, sunburn and cracking. See specific instructions within the relevant crop group regarding timing and number of applications to optimise results.

**Sunburn protection:** Apply Haven® to sunburn-prone fruit, leaves or limb and bark surfaces prior to when conditions conducive to sunburn occur. When initiating sprays for sunburn protection where there have been no previous sprays, commence sprays after early fruit formation, provide thorough coverage to all fruit or other surfaces with one or two full rate applications one week apart. Depending upon the length of high heat period additional applications may be necessary at 7 to 21 day intervals

**Post-harvest removal:** Haven® does not leave any detectable residue on harvested fruit, nuts or vegetables and does not require any steps for removal.

**Apply for full coverage. Do not apply to runoff to avoid waste and poor coverage. Apply several days prior to predicted solar stress events.**

CROPS	RATE/per 100L	WATER RATE per hectare	COMMENTS
Tree fruit incl. apples, pears, apricots, cherries, nectarines, plums, peaches and avocados	400-800mls	1000-2000 litres	For typical semi-dwarf trees in full foliage. In pome fruit, initial application prior to fruit reaching 20mm in diameter and the onset of rapid fruit expansion. Reapply every 7-14 days or as conditions require.
Citrus fruit incl. lemons, grapefruit, limes, kumquat, mandarins, oranges, pummelo and tangelos	400-800mls	1000-2000 litres	For typical 3-4metre trees. Initial application when fruits are first developing and about 25mm in diameter. Reapply every 14-21 days or as conditions require.
Nut crops	400-800mls	1000-2000 litres	For most trees. In almonds and walnuts, initial application at full bloom. Reapply every 7-14 days or as conditions require.
Blackberries, blueberries, boysenberries, cranberries and loganberries	400-800mls	500 litres	For most small fruit crops. Initial application at full bloom and prior to sensitive periods. Reapply every 7-14 days or as conditions require.
Grapes incl. table and wine	400-800mls	500-1000 litres	For most grape crops. Apply when grapes are pea sized (6mm) Make 2nd application at veraison. If required 3rd application can be made 7-14 days later. To avoid short berry formation, do not apply during bloom.
Tomatoes, peppers and eggplant	400-800mls	500-1000 litres	For most fruiting vegetable crops. Apply at fruit set with subsequent applications every 7-14 days.
Garlic, leeks, onions and shallots	400-800mls	300-500 litres	For most bulb vegetable crops. Reapply every 7-14 days.
Cucumber, summer and winter squash, pumpkin, muskmelon and watermelon	400-800mls	300-500 litres	For most cucurbit vegetable crops. Apply shortly after bloom, reapply every 7-14 days during periods of stress.
Broccoli, brussels sprouts, Chinese cabbage, cauliflower, cabbage, kale, mustard greens, celery, parsley, lettuces and spinach	400-800mls	300-500 litres	For most brassica and leafy vegetable crops. Reapply every 7-14 days or as conditions require.
Strawberries and asparagus	400-800mls	300-500 litres	For most other miscellaneous vegetable and fruit crops. Apply to strawberries during or shortly after initial bloom. Reapply every 7-14 days or as conditions require.
Cereal grains incl. wheat, oats and barley	400-800mls	300-500 litres	For most cereal grains. Reapply at or near flag-leaf stage with optional 2nd application 2 weeks later.
Corn incl. field corn, popcorn, sweet corn and seed corn	400-800mls	ground appl. 300-400 litres aerial appl. 100-200 litres	Reapply at tassal stage with optional 2nd application 14 days later.
Tropical crops incl. guavas, papaya, bananas, passionfruit	400-800mls	1000-1500 litres	Apply at fruit set. Reapply every 7-14 days or as conditions require. Initial application to waxy surfaces may not spread sufficiently and could require reapplication.
Turf	400-800mls	20 litres per 100 square mtrs	Apply to turf grass to reduce heat stress. Make initial application prior to high temperatures. Reapply at 7-14 day intervals as long as high stress period lasts.

**WARRANTY:** This formulation is warranted to contain the specified contents when packed. The user bears the risk for the damage resulting from factors beyond the manufacturer's control. The manufacturer declines all liability for damage resulting from improper storage or use of the product.

Registered and Distributed by:

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### EMERGENCY RESPONSE

0800 CHEMCALL (0800 243 622)

BATCH No:

DATE OF MANUFACTURE:

Haven® is a registered trademark of Grosafe Chemicals Ltd.