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VBC-30452 SG Plant Growth Regulator

**Water Soluble Granule
COMMERCIAL**

For Use on Apple for Thinning

ACTIVE INGREDIENT:

1-aminocyclopropanecarboxylic acid40.0%

*Warning, Contains the allergen milk.

REGISTRATION NO.: 34860 PEST CONTROL PRODUCTS ACT

**READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN**

Net Volume: 100 g - bulk

Registrant:
Valent BioSciences LLC
1910 Innovation Way, Suite 100
Libertyville, Illinois 60048
USA
1-800-323-9597

Canadian Agent:
Valent Canada, Inc.
201-230 Hanlon Creek Blvd.
Guelph, ON N1C 0A1
519-767-9262

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN.

Avoid breathing dust/spray mist. Avoid contact with skin, 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. 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. Remove clothing immediately if pesticide gets inside. Then, wash thoroughly and put on clean clothing.

Workers must wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks, and shoes during handling, mixing, loading, application, clean-up and repair.

Gloves are not required during application within a closed cab.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact Valent BioSciences LLC at 1-800-323-9597.

FIRST AID

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN

OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED: Move the person to fresh air. If the person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF IN EYES: 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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control centre or doctor or going for treatment. You may also contact 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-6-Valent.

TOXICOLOGICAL INFORMATION

Treat symptomatically.

ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic plants and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

STORAGE AND DISPOSAL

STORAGE:

Store this product away from food or feed. Store between 7°C and 26°C (45 and 80°F).

DISPOSAL:

Do not reuse this container for any purpose. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.

GENERAL INFORMATION

VBC-30452 SG contains the active ingredient 1-aminocyclopropanecarboxylic acid, commonly known as ACC. ACC is a potent plant growth regulator and is a precursor for ethylene production in plant tissues. Ethylene affects plant processes such as flower development, fruit set, fruit maturation, fruit ripening, and fruit abscission.

IMPORTANT: Before application, read all use directions thoroughly. Use VBC-30452 SG only as directed. Consult your local Valent specialist for specific information for your region.

GENERAL APPLICATION INSTRUCTIONS

- Do not apply this product through any type of irrigation system.
- VBC-30452 SG rate will depend on the amount of fruit thinning required. Product performance can be impacted by factors such as cultivar, prevailing and anticipated climatic conditions, tree vigour, fruit set potential and orchard history.
- Not all varieties and clones have been individually tested for crop safety under all environmental conditions and growing circumstances.
- Apply VBC-30452 SG in sufficient water to ensure that flowers, fruits, and foliage receive thorough spray coverage using calibrated spray equipment. Adjust water volumes based on plant size and spacing. However, excessive spray application volumes resulting in spray runoff will reduce product efficacy.
- Prepare spray solution by mixing the required amount of product with water in a clean, empty spray tank. Dispose of any unused spray material at the end of each day
- Avoid applications during the heat of the day. For best results, apply VBC-30452 SG under slow drying conditions, e.g. early in the morning or at night in order to maximize absorption.
- Maintain solution pH between 5 and 8.
- Do not apply VBC-30452 SG to injured or stressed plants or fruits e.g. drought stress, freeze injury, girdled trees, etc.
- Do not use overhead cooling or irrigation equipment for at least 8 hours following VBC-30452 SG application.
- Do not apply VBC-30452 SG if rain is expected within 8 hours of application.
- Do not apply VBC-30452 SG during bloom if there is a frost at this time. If frost occurs during bloom, wait until damage to flowers and buds can be assessed to determine if application of VBC-30452 SG is needed for additional thinning.

Tank Mixing:

This product may be tank mixed with a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Valent BioSciences LLC at 1-800-323-9597 for information before applying any tank mix that is not specifically recommended on this label.

DIRECTION FOR USE

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Airblast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

DO NOT apply by air.

SPRAY BUFFER ZONES

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), and estuarine/marine habitats.

Method of application	Crop	Spray Buffer Zones (metres) Required for the Protection of:				Terrestrial Habitat:
		Freshwater Habitat of Depths:		Marine Habitats of Depths:		
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	

Airblast	Apple	Early growth stage	5	2	2	1	50
		Late growth stage	3	1	2	1	40

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

DIRECTIONS FOR USE ON APPLE	
OBJECTIVE / BENEFIT:	APPLICATION RATE AND TIMING
Depending on cultivar, orchard conditions, application timing, and grower objectives, one or more of the following benefits will be associated with VBC-30452 SG: <ul style="list-style-type: none"> • Fruit thinning • Enhanced return bloom 	Apply 500-1000 g/ha (equivalent to 200-400 g a.i./ha) or 200 to 400 ppm VBC-30452 SG assuming a spray volume of 1000 L/ha. VBC-30452 SG can be applied in the period from full bloom until the average diameter of the king fruitlets is 25 mm. VBC-30452 SG is most active when king fruitlet diameter is 15- 20 mm.
USE INSTRUCTIONS: <ul style="list-style-type: none"> • Direct 80% of the spray into the upper 2/3rd of the tree canopy. • Use higher rates in orchards that have a history of being difficult to thin, in varieties known to be difficult to thin. • VBC-30452 SG may be used in a program with other thinning products, such as Maxcel[®] Plant Growth Regulator. • Do not make more than 2 applications/ season. Allow 7-10 days to observe the effect of any thinning product before making another application. • Do not exceed more than 2000 g/ha (800 g a.i./ha) per season. • Applications will be most effective when the maximum temperature on the day of application and for the following 2-3 days is 18°C (64°F) or higher. • Avoid spraying VBC-30452 SG when ambient temperatures exceed 30°C (86°F) on the day of application and for the following 2-3 days. 	

Water Volume: VBC-30452 SG efficacy requires that fruit and foliage receive thorough spray coverage. To ensure thorough coverage adjust water volumes based on tree size and spacing and use calibrated spray equipment (i.e. orchard air blast sprayer). Excessive spray application volumes that result in spray runoff will reduce product performance. In most cases, 1000 litres per hectare has been shown to be effective.

Adjuvants: Applying VBC-30452 SG with a non-ionic surfactant, such as Agral 90, at 0.125% v/v may improve consistency of performance and response

Additional Notes:

- Application of VBC-30452 SG to stressed trees or when temperatures are above 30°C (86°F) may result in minor leaf yellowing or leaf drop.
- Do not apply VBC-30452 SG to injured or stressed plants or fruits e.g. drought stress, freeze injury, girdled trees, etc.

VBC-30452 SG Dilution Table

Grams of VBC-30452 SG per 1000 Litres of spray required to obtain given ppm concentration.

200 ppm	300 ppm	400 ppm
500	750	1000

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