

WISDOM® G L/N

For control of listed pests on non-agricultural use sites including lawns and building perimeters (residential, institutional, public, commercial, and industrial sites), athletic fields, recreational areas, parks, and cemeteries.

For control of listed pests on agricultural use sites including nurseries and sod farms.

For use as a USDA APHIS approved quarantine treatment for control of Imported Fire Ants in containerized nursery stock.

For outdoor use only

One 25 pound bag treats $\frac{1}{4}$ acre (10,890 square feet) when applied at the maximum rate on residential lawns.

ACTIVE INGREDIENT:

Bifenthrin* 0.2% By Weight

OTHER INGREDIENTS 99.8%

TOTAL 100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
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.
EMERGENCY INFORMATION	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:	
For Medical Emergencies, phone:.....1-888-681-4261	
For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC®.....1-800-424-9300	
For Product Use Information, phone: AMVAC®.....1-888-462-6822	
NOTE TO PHYSICIAN	
This product is a pyrethroid. If large amounts have been ingested, milk, cream and other digestible fats and oils may increase absorption and so should be avoided.	

SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE.

EPA Reg. No. 5481-683

EPA Est. No.

Net Contents: _____



AMVAC Chemical Corporation
4695 MacArthur Court, Suite 1200
Newport Beach, CA 92660 U.S.A.
1-888-462-6822

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin. 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.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Waterproof gloves.
- Shoes and socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters.

USER SAFETY RECOMMENDATIONS

Users Should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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 this label about personal protective equipment (PPE) and restricted-entry interval. 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 12 hours.

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.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses. Keep people and pets off treated areas until application is completed or, if irrigated, until the treated area has dried.

For control of listed pests on non-agricultural use sites including lawns and building perimeters (residential, institutional, public, commercial and industrial sites), athletic fields, recreational areas, parks and cemeteries as well as listed agricultural use sites including nurseries and sod farms.

For outdoor use only.

- Not for use on golf courses or on grass grown for seed.
- Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Do not spread the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- Do not allow the product to enter any drain during or after application.
- Do not make applications during rain. Rainfall within 24 hours after application may cause unintended runoff of pesticide application.
- Do not apply when the wind speed is greater than 15 mph.
- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except for a spot or crack and crevice treatment.
- Do not irrigate to the point of runoff.
- Do not apply by air.

Do not apply more than 0.2 lb. active ingredient (a.i.) per acre (100 lbs. WISDOM G L/N per acre) per application on residential use sites (i.e., around private homes, apartment buildings, condominiums, non-agricultural outbuildings, non-commercial greenhouses, pre-schools or day care facilities). May be applied at up to 0.4 lb. a.i. (200 lbs. WISDOM G L/N) per acre per application on non-residential use sites (i.e., around institutional, public, commercial or industrial buildings; parks; recreational areas or athletic fields).

Do not broadcast apply more than 0.4 lb. a.i. (200 lbs. WISDOM G L/N) per acre per year.

Water treated area as directed on this label. Sweeping any product that lands on a driveway, sidewalk, or street,

back onto the treated area of the lawn or garden will help to prevent run-off to water bodies or drainage systems.

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Application to pervious surfaces such as soil (including potting media), lawn, turf, and other vegetation
2. Perimeter band treatments of 7 feet wide or less from the base of a man-made structure to pervious surfaces (e.g., soil, mulch, or lawn)

Spot treatments must not exceed two square feet in size (for example, 2ft. by 1 ft or 4 ft. by 0.5 ft.).

Resistance Management

For resistance management, WISDOM G L/N contains bifenthrin, a Group 3 insecticide. Any insect population may contain individuals naturally resistant to WISDOM G L/N and other Group 3 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same locations. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, take one or more of the following steps:

- Rotate the use of WISDOM G L/N or other Group 3 insecticides within the year with different groups that control the same pests.
- Adopt an integrated insect management program for insecticide use that includes scouting, uses historical information related to pesticide use record keeping, and which considers cultural, biological, and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or pest control advisor for any additional pesticide resistance-management and/or IPM recommendations for specific site and pest problems in your area.

For further information or to report suspected resistance contact AMVAC at (1-888-462-6822). You can also contact your pesticide distributor or university extension specialist to report resistance.

LAWN AND PERIMETER APPLICATIONS

LAWN APPLICATION: Broadcast WISDOM G L/N with suitable application equipment to ensure uniform coverage over the treatment area.

APPLICATION RATES

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, WISDOM G L/N may be applied at up to 0.4 lb. a.i. (200 lbs. WISDOM G L/N) per acre to control each of the pests listed in this Table. For residential lawn use, do not apply more than 0.2 lb. a.i. (100 lbs. WISDOM G L/N) per acre per application.

For applications at rates above 0.34 lb. a.i./A (170 lbs. WISDOM G L/N per acre), users must water the treated area immediately after application.

PEST	ACTIVE INGREDIENT lb. a.i./A	APPLICATION RATE	
		WISDOM G L/N	
Armyworms ¹ Cutworms ¹ Sod Webworm ¹	0.1	50 lbs. per acre	1.15 lbs. per 1000 sq. ft.
Annual Bluegrass Weevil (<i>Hyperodes</i>) (Adult) ² Billbugs (Adult) ³ Black Turfgrass Ataenius (Adult) ⁴ Leafhoppers Mealybugs	0.1 – 0.2	50 – 100 lbs. per acre	1.15 – 2.3 lbs. per 1000 sq. ft.
European Crane Fly (larvae)	0.15 – 0.3	75 – 150 lbs. per acre	1.72 – 3.44 lbs. per 1000 sq. ft.
Ants Centipedes Chinch Bugs ⁵ Fleas (Larvae) ⁶ Fleas (Adults) Imported Fire Ants (Adult) ⁷ Imported Fire Ants (Mounds) ⁷ Millipedes Mole Cricket (Adult) ⁸ Mole Cricket (Nymph) ⁹ Ticks ¹⁰	0.2 – 0.4	100 – 200 lbs. per acre	2.3 – 4.6 lbs. per 1000 sq. ft.
Pillbugs Sowbugs	0.4	200 lbs. per acre	4.6 lbs. per 1000 sq. ft.

In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).

In New York State, do make a single repeat application of WISDOM G L/N if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

COMMENTS

¹**Armyworms, Cutworms, and Sod Webworms:** To ensure optimum control, irrigate the treated area with up to 0.1 inch of water immediately after application to activate (release from the granule) the insecticide.

²**Annual Bluegrass Weevil (*Hyperodes*) adults:** Time applications to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when flowering dogwood is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing. Summer applications will help suppress first and second generation adults.

³**Billbugs:** Apply when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of overwintered chinch bugs.

⁴Black Turfgrass Ataenius adults: Apply during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. Time the May application to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). Time the July application to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

⁵Chinch Bugs: Chinch bugs infest the base of grass plants and are often found in the thatch layer. Irrigate the treated area with up to 0.25 inch of water immediately after application to activate (release from the granule) the insecticide. Chinch bugs can be one of the most difficult pests to control in grasses and the higher labeled rates may be required to control populations that contain both nymphs and adults during the summer.

⁶Flea larvae: Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Irrigate the treated area with up to 0.5 inch of water immediately after application to activate (release from the granule) the insecticide.

⁷Imported Fire ants: Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application. For broadcast treatments apply up to 0.4 lb. a.i./A. Treat mounds by diluting 1 teaspoon of Wisdom TC Flowable (EPA Reg. No. 5481-520) formulation per gallon of water and applying 1 to 2 gallons of finished dilution per mound. Treat the mounds with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. Also treat a four-foot diameter circle around the mound. For best results, apply in cool weather (65 – 80° F) or in early morning or late evening hours.

Note: A spray rig that is calibrated to apply 0.1 lb. a.i./A (20 ozs.) of Wisdom TC Flowable (EPA Reg. No. 5481-520) in 2.5 gallons of water per 1,000 square feet contains the approximate dilution (1 teaspoon per gallon) that is required for fire ant mound drenches. *Application of 125 lbs./A of WISDOM G L/N will provide six months residual activity for control of foraging Imported Fire Ants and newly mated fly-in queens.

*Not applicable in California.

⁸Mole Cricket adults: Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Apply as late in the day as possible and water in with up to 0.5 inch of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Treat grass areas that receive pressure from adult mole crickets at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

⁹Mole Cricket nymphs: Treat grass areas that received intense adult mole cricket pressure in the spring immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Apply as late in the day as possible and water in with up to 0.5 inch of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

¹⁰Ticks: Do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher application rates when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreat as necessary to maintain adequate control. Do not allow public use of treated areas during application.

Deer Ticks (*Ixodes sp.*) have a complicated life cycle that ranges over a two year period and involves four life stages. Apply in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Apply as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

PERIMETER APPLICATION

Apply to ground area up to 7 feet wide around and adjacent to the structure. Ensure thorough coverage of treated surfaces. Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios.

Boundary Applications: Apply to soil areas, ornamental gardens, pavement crevices, fencelines, planter areas, vegetation areas and mulch areas. Treat surfaces to ensure thorough coverage but avoid runoff from irrigation. To treat insects harbored in cracks-and-crevices, applications must be made in such a manner to avoid runoff onto untreated structural surfaces and plants from irrigation.

Appl. Rate: Pounds Per 1,000 sq. ft.	Band Width In Feet	Pounds of WISDOM G L/N for Perimeter Applications Linear Distance (Feet) Around Structure							
		100	150	200	250	300	400	500	1,000
2.3	3.5	0.9	1.3	1.7	2.1	2.5	3.3	4.1	8.1
2.3	7	2.0	2.8	3.6	4.4	5.2	6.8	8.4	16.5
3.0	3.5	1.2	1.7	2.2	2.7	3.3	4.3	5.4	10.6
3.0	7	2.6	3.6	4.7	5.7	6.8	8.9	11.0	21.5
3.5	3.5	1.4	2.0	2.6	3.2	3.8	5.0	6.3	12.4
3.5	7	3.0	4.2	5.4	6.7	7.9	10.3	12.8	25.0
4.6	3.5	1.8	2.6	3.4	4.2	5	6.6	8.2	16.2
4.6	7	3.9	5.5	7.1	8.8	10.4	13.6	16.8	32.9

NOTE: The amounts of WISDOM G L/N listed in the above table are based on the total area being treated. This area is determined by multiplying the linear distance by the band width and then adding to that value the area of a circle whose radius is equal to the band width (to account for the area treated at the four corners of a rectangular structure).

FIRE ANT MOUND TREATMENT: Apply 1/2 cup of WISDOM G L/N per mound and then drench the mound with 1 to 2 gallons of water. Drench the mound with sufficient force to break its apex and allow the insecticide to flow into the ant tunnels. For best results, apply in cool weather (65 to 80° F) or in early morning or late evening hours. Treat new mounds as they appear. Do not use food utensils such as teaspoons and measuring cups for food purposes after use with insecticide.

INDUSTRIAL NON-AGRICULTURAL APPLICATIONS

(Industrial Sites, Parks, Athletic Fields and Cemeteries)

BROADCAST APPLICATIONS: For the control of actively foraging ants (including Imported Fire Ants) broadcast uniformly 2.3 to 4.6 lbs. WISDOM G L/N per 1000 sq. ft. (0.2 to 0.4 lb. a.i./A). See comments section under Lawn & Perimeter Applications for additional rate directions.

PAD MOUNTED ELECTRICAL SITES: To reduce or prevent ant mound building activity on electrical pads, uniformly distribute 1.0 to 1.5 Tablespoons (0.06 to 0.09 lb.) of WISDOM G L/N per 4 sq. ft. of mounting pad. Where existing transformers are completely or partially filled with soil excavated by resident ants, remove any excess fill and level the remaining soil prior to application. Do not use food utensils such as tablespoons and measuring cups for food purposes after use with insecticide.

NOTE: Electrical transformers appear to be more attractive to ants during the cooler months. For best results, treat in the Fall or early Spring.

WISDOM G L/N –Spreader Settings for Broadcast Applications.

EQUIPMENT	GROUND SPEED (MPH)	SPREADER SETTING			
		100 POUNDS PER ACRE		200 POUNDS PER ACRE	
		ONCE OVER	TWICE OVER	ONCE OVER	TWICE OVER
Hand-Pushed					
LESCO Rotary	3	B + 1/4	A + 1/2	C + 1/2	B + 1/4
Scotts R-8A-1 Rotary	3	G	E	Not Rec.	G
Gandy Models (42, 36, 30, 24)	3	12	10.5	16	12
Spyker (all Models)	3	2.6	2	3.1	2.6
Equipment Drawn (PTO=540 RPM)					
Gandy Models (42, 36, 30, 24)	4.5	14	11.5	19	14
Gandy 6500 Series	4.5	15	11	20	15
Gandy 10T Series	5.0	16.5	12	24	16.5
Herd GT-77	4.0	-	-	8-H	-
Herd GT-77	8.0	8-H	-	-	8-H
Lely 2.3202.000.1	4.5	2	1	3.5	2
Lely Model L-400	4.5	Not Rec.	Not Rec.	2	Not Rec.
Vicon PS402	4.5	10	7	16	10
Vicon PS1002T	4.5	13	9	21	13

Optional or Alternate Spreader Settings

Recommended Spreader Settings for Broadcast Applications		
Spreader Make and Model	Setting To Deliver	
	2.3 lbs. Per 1,000 sq. ft.	3.5 lbs. Per 1,000 sq. ft.
Spyker (all models)	4.7	5
Earthway Drop 7300B	16	17
Republic/Scotts Broadcast	3	4
Republic/ Scotts Drop	6	7
Precision Drop FH-22D	9	10
Precision Broadcast/Red Devil	12	13
Scott Speedy Green	3	4.5
Broadcast/Earthway 2850	14	15
Broadcast/Earthway 2800A	14	15
Broadcast/Earthway 2050 S.U.	14	15

NOTE: These settings should be used as starting points when calibrating a spreader to achieve the desired labeled rate of WISDOM G L/N.

After calibration, regularly observe the amount of WISDOM G L/N that is applied to a known area and make further setting adjustments, as necessary, to maintain the appropriate application rate. Calibrate spreaders periodically to

ensure that equipment wear or other factors have not altered the flow rate of WISDOM G L/N. Calibration instructions are included in the Owner's Manual that was provided by the equipment manufacturer at the time of purchase.

ORNAMENTAL USE

For soil incorporation into potting media used in containerized plantings of ornamental trees, shrubs, plants, flowers, conifers, Christmas trees, bushes and nonbearing fruit and nut trees in nurseries.

APPLICATION INSTRUCTIONS FOR POTTING MEDIA: Determine bulk density of the potting media by measuring the dry weight of a unit volume of the mix. Based on the length of control required, thoroughly mix the appropriate quantity of the WISDOM G L/N with equipment suitable to give uniform distribution in the potting media. WISDOM G L/N may be pre-mixed with an appropriate amount of sand (1:10) to ensure adequate distribution of the product of the mix.

WISDOM G L/N is approved under the USDA Plant Protection Imported Fire Ant Quarantine Certification program when used in accordance with USDA guidelines. Use the application rates given in the table below to determine the length of control required for certification.							
Pest	USDA IFA Certification Period (months)	App. Conc (AI ppm)	Potting Media Bulk Density				
			200	300	400	500	600
			App. Rate in lbs. WISDOM G L/N Per Cubic Yard*				
Imported Fire Ant	0 – 6	10	1.0	1.5	2.0	2.5	3.0
	7 – 12	12	1.2	1.8	2.4	3.0	3.6
	13 – 24	15	1.5	2.25	3.0	3.75	4.5
	Continuous	25	2.5	3.75	5.0	6.25	7.5
Comments: Incorporate appropriate amount of WISDOM G L/N in one cubic yard of potting media based on the known bulk density.							

FOR USE ON ORNAMENTAL PLANTS IN NURSERIES

For Fungus Gnat larvae & Mealybugs use 5 to 10 ppm bifenthrin. For Black Vine Weevil larvae, Root Weevil larvae, White Grubs (including Japanese Beetle, Oriental Beetle and European Chafer larvae), & Imported Fire Ants use 10 to 25 ppm bifenthrin. Use the higher rates for extended residual control.

Pest	App. Conc (AI ppm)	Potting Media Bulk Density				
		200	300	400	500	600
		App Rate in lbs. WISDOM G L/N Per Cubic Yard*				
Fungus Gnat larvae	5	0.5	0.75	1.0	1.25	1.5
Mealybugs	10	1.0	1.5	2.0	2.5	3.0
Black Vine Weevil larvae	10 15 25	1.0 1.5 2.5	1.5 2.25 3.75	2.0 3.0 5.0	2.5 3.75 6.25	3.0 4.5 7.5
Root Weevil larvae						
White Grubs						
Imported Fire Ants						
European Crane Fly larvae						
Comments: Incorporate appropriate amount of WISDOM G L/N in one cubic yard of potting media based on the known bulk density.						

*lbs, of WISDOM G L/N per cubic yard of potting media

$$= \frac{\text{bulk density of potting media} \times \text{AI ppm}}{2000}$$

(bulk density = laboratory determined dry weight of a unit volume of potting media)

SOD FARM USE Directions: Follow the lawn application use directions above when controlling listed pests on sod farms.

Dealers Must Sell in Original Packages Only.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not pour or dispose down-the-drain or sewer. Call your local solid waste agency for local disposal options.

PESTICIDE STORAGE: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use close tightly.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call Chemtrec 1-800-424-9300.

To confine spill: Cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

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: Nonrefillable container. Do not reuse or refill this container.

Plastic bags: Completely empty bag into application equipment. When completely empty, offer for recycling, if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; and (b) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions. THIS WARRANTY DOES NOT EXTEND TO THE USE OF THIS PRODUCT CONTRARY TO LABEL INSTRUCTIONS, OR UNDER CONDITIONS NOT REASONABLY FORESEEABLE.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW MANUFACTURER OR SELLER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

AMVAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty which may be varied only by agreement in writing signed by an authorized representative of AMVAC.

© 2022 AMVAC Chemical Corporation is a wholly owned subsidiary of American Vanguard Corporation. All Rights Reserved. AMERICAN VANGUARD, AMGUARD, AMVAC, WISDOM, and their respective logos are trademarks owned by AMVAC Chemical Corporation. Chemtrec is a service mark of the American Chemistry Council, Inc.

AMVAC Chemical Corporation
4695 MacArthur Court, Suite 1200,
Newport Beach, CA 92660

1. Identification

Product identifier	WISDOM® G L/N	
Other means of identification		
SDS number	318	
Product registration number	5481-683	
Recommended use	Pyrethroid type insecticide/miticide.	
Recommended restrictions	No other uses are advised. Keep out of the Reach of Children!	
EPA Registration number	EPA: 5481-683	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	AMVAC Chemical Corporation	
Address	4695 MacArthur Court Suite 1200 Newport Beach, CA 92660 United States	
Telephone	AMVAC Chemical Corp	949-260-1200
	AMVAC Chemical Corp	949-260-6270(FAX)
	Product Use	888-462-6822
Website	www.amvac.com	
E-mail	CustServ@amvac.com	
Emergency phone number	Medical	888-681-4261
	CHEMTREC®	800-424-9300
	(USA+Canada)	
	CHEMTREC® (Outside USA)	+1-703-527-3887

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Carcinogenicity	Category 1A
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger
Hazard statement	May cause cancer. Causes damage to organs through prolonged or repeated exposure by inhalation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wash thoroughly after handling.
Response	If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. Collect spillage.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	This is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced in section 15. The pesticide label also includes other important information, including directions for use.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Bifenthrin	Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethyl-, (2-methyl[1,1'-biphenyl]-3-yl)methyl ester, (1R,3R)-rel-	82657-04-3	0.2
Crystalline Silica		14808-60-7	< 99.3

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center for treatment advice.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Call a poison center or doctor/physician.
Most important symptoms/effects, acute and delayed	Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Bifenthrin is moderately toxic if swallowed and has a low dermal toxicity. Gastric lavage using an endotracheal tube may be preferred to vomiting. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Firefighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Attempt to reclaim the free product, if this is possible. If contaminated, shovel, sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Keep away from food, drink and animal feedstuffs. Keep out of the reach of children. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities	Do not store in direct sunlight. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in a well-ventilated place. Use care in handling/storage.

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	If contact is likely, safety glasses with side shields are recommended.
Skin protection	
Hand protection	Wear protective gloves.
Other	Long-sleeved shirt and long pants or coveralls, socks and closed toe shoes are required.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Granular.
Color	Gray to brown or blue.

Odor Bland.

Odor threshold None established.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 1.81E-07 mm Hg @ 25°C (Bifenthrin)

Vapor density Heavier than air.

Relative density 1.39

Solubility(ies)

Solubility (water) Not appreciably soluble in water.

Partition coefficient (n-octanol/water) > 6 (Bifenthrin)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Density 85 - 90 lb/ft³

Explosive properties Not explosive.

Molecular formula C₂₃H₂₂ClF₃O₂ (Bifenthrin)

Oxidizing properties Not oxidizing.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products Emits hazardous fumes and smoke of unknown composition when heated to decomposition or burned.

11. Toxicological information

Information on likely routes of exposure

Inhalation Causes damage to organs through prolonged or repeated exposure by inhalation.

Skin contact Prolonged skin contact may cause temporary irritation.

Eye contact	Slight irritant.	
Ingestion	May cause discomfort if swallowed.	
Symptoms related to the physical, chemical and toxicological characteristics	Contact with Bifenthrin may occasionally produce skin sensitization such as rashes, numbing, burning or tingling.	
Information on toxicological effects		
Acute toxicity	Based on available data, the classification criteria are not met.	
Product	Species	Test Results
WISDOM® G L/N		
acute		
dermal		
LD50	Rabbit	> 5050 mg/kg
oral		
LD50	female rat	> 5000 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Slight irritant.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	Not classified.	
Carcinogenicity	Respirable crystalline silica is listed as being carcinogenic by both IARC and NTP. It is present in the product, based on the carrier.	

Bifenthrin has produced an increased incidence of urinary bladder tumors in male mice at the highest dose level tested. This response however was considered equivocal and not evidence of a clear compound related effect. The doses that produced this oncogenic effect in laboratory animals greatly exceeds human exposure levels for the recommended use of Bifenthrin products. Consequently, the oncogenic potential in humans is extremely weak or non-existent.

IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline Silica (CAS 14808-60-7) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Crystalline Silica (CAS 14808-60-7) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Crystalline Silica (CAS 14808-60-7) Known To Be Human Carcinogen.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure by inhalation.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Causes damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity	Very toxic to aquatic life with long lasting effects.
--------------------	---

Components	Species	Test Results
Bifenthrin (CAS 82657-04-3)		
Aquatic		
<i>Acute</i>		
Crustacea	LC50	
	Water flea (Ceriodaphnia dubia)	0 - 0.0002 mg/l, 48 hours
	Water flea (Daphnia magna)	0.0001 - 0.0009 mg/l, 48 hours

Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
--------------------------------------	--

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
WISDOM® G L/N	> 6, (Bifenthrin)

Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
13. Disposal considerations	
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Bifenthrin)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.
Read safety instructions, SDS and emergency procedures before handling.	

IMDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenthrin), MARINE POLLUTANT
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

IATA; IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This product is registered under EPA/FIFRA Regulations. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

HAZARD TO HUMANS AND DOMESTIC ANIMALS.

CAUTION! Harmful if absorbed through skin. 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.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Crystalline Silica (CAS 14808-60-7)

Cancer
lung effects
immune system effects
kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Carcinogenicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

US state regulations**California Proposition 65**

WARNING: This product can expose you to chemicals including Crystalline Silica, which is known to the State of California to cause cancer, and N-Methylpyrrolidone, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date Sep-27-2022

Revision date Sep-27-2022

Version # 1.0

HMIS® ratings Health: 1*
Flammability: 0
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 0
Instability: 0

Disclaimer

This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the material to which the information relates.

AMVAC Chemical Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

©2022 AMVAC Chemical Corporation. AMVAC and the AMVAC Logo are trademarks owned by AMVAC Chemical Corporation. All Rights Reserved.

WISDOM is a trademark owned by AMVAC Chemical Corporation.
ACGIH is a trademark of the American Conference of Governmental Industrial Hygienists.
CHEMTREC is a trademark of the American Chemistry Council, Inc.
HMIS is a trademark of the American Coatings Association.
NFPA is a trademark of the National Fire Protection Association, Inc.