

GMCA 2023

Derek Wright National Sales Manager Public Health



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AMGUARD™ Environmental Technologies



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STRATEGIC AREAS

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AMGUARD™ Environmental Technologies ("AMGUARD") the specialty markets division of AMVAC Chemical Corporation, a wholly owned subsidiary of American Vanguard Corporation ("AVD"), is pleased to announce it has entered into a supply agreement with NewLeaf Symbiotics® to bring biological solutions to major North American specialty markets.

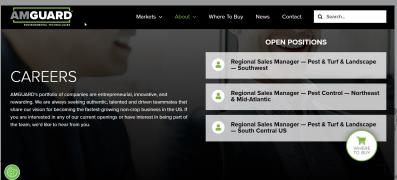
Under the agreement, AMGUARD becomes the exclusive seller of NewLeaf products including biostimulants and bio-protection products in golf, ornamental, controlled-environment agriculture (CEA), cannabis, and consumer markets in the U.S., Canada, and Mexico. Together these production areas are estimated to comprise slightly more than 50 million treatable acres in North America.



















PUBLIC HEALTH

Aerial Adulticides, Ground Adulticides, & Larvicide

Aerial Adulticide Brand	Active Ingredient
DIBROM® CONCENTRATE	Naled
TRUMPET® EC	Naled

Ground Adulticide Brand	Active Ingredient
AVESTA® CS	Lambda-cyhalothrin
NUVAN® PROSTRIPS®	Dichlorvos
NUVAN® PROSTRIPS®+	Dichlorvos
WISDOM® TC FLOWABLE	Bifenthrin

Larvicide Brand	Active Ingredient
SUMMIT® B.t.i. BRIQUETS	B.t.i.

















DIBROM® CONCENTRATE

Naled 87.4%

- Application Sites:
 - · For aerial application
 - For use by federal, state, tribal, local government, vector control officials, or by appropriately authorized or certified personnel.
- IRAC Group 1-B insecticide



Effective Against:

Adult mosquitoes, biting flies, crane flies, dog
flies, filth flies, gnats, house flies, midges, small
flying moths, stable flies, and other labeled
pests

Mode of Action:

- Naled, an organophosphate insecticide, works by inhibiting acetylcholinesterase and ultimately paralyzing insect nervous systems.
- EPA Reg. No. 5481-480

Item #	Unit Size	Case Size
11368	30 gallons	30 gallons

DIBROM CONCENTRATE is an EPA registered product of AMVAC Chemical Corporation and a restricted use pesticide. Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your state agency responsible for pesticide registration to ensure registration status.

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TRUMPET® EC

Naled 78.0%

- Application Sites:
 - · For aerial application
 - For use by federal, state, tribal, local government, vector control officials, or by appropriately authorized or certified personnel.
- · IRAC Group 1-B insecticide



Effective Against:

Adult mosquitoes, biting flies, crane flies, dog
 flies, filth flies, gnats, house flies, midges, small
 flying moths, stable flies, and other labeled
 pests

Mode of Action:

- Naled, an organophosphate insecticide, works by inhibiting acetylcholinesterase and ultimately paralyzing insect nervous systems
- EPA Reg. No. 5481-481

Item#	Unit Size	Case Size
10318	30 gallons	30 gallons

TRUMPET EC is an EPA registered product of AMVAC Chemical Corporation and a restricted use pesticide. Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your state agency responsible for pesticide registration to ensure registration status.

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AVESTA® CS

Lambda-Cyhalothrin 9.7%

Application Sites:

- Lawns and ornamentals
- · Indoors and outdoors
- · Perimeter pest control
- Spot treatment in, on, and around buildings

Effective Against:

 Ants, cockroaches, mosquitoes, Japanese beetles (adults), ticks, silverfish, spiders, fleas (outdoors), flies, bed bugs (adults), and other labeled pests.

IRAC Group 3 insecticide

Mode of Action:

- Sodium channel modulator. Pyrethroids act on sodium channels of the nerve axon membrane. They affect the sodium channel by prolonging sodium ion influx. The excess sodium causes an electrical imbalance and results in the excessive and repetitive firing of the neurons, which disrupts normal nerve impulse transmission and leads to paralysis and ultimately the death of the insect
- EPA Reg. No. 74530-53-5481

Item #	Unit Size	Case Size
13446	8 fl oz	8 x 8 fl oz
13447	1 qt	8 x 1 qt

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VESTA

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WISDOM® TC FLOWABLE

Bifenthrin 7.9%

Application Sites:

- Pest: Indoors and outdoors on residential, institutional, public, commercial, and industrial buildings; may be used as a termiticide by state licensed applicators
- Ornamentals: Bedding plants, foliage plants, ground covers, shrubs, and trees
- Turfgrass: Athletic fields, lawns, parks, and recreational areas

Item #	Unit Size	Case Size
11860	1 quart	12 x 1 quart
10583	0.75 gallon	4 x 0.75 gallon
11743	1 gallon	4 x 1 gallon
14570	30 gallons	30 gallons

• Effective Against:

- Ants, armyworms, chinch bugs, Japanese beetle (adults), mosquitoes, spiders, spotted lanternfly*, ticks, and other labeled pests
 - *Per FIFRA Section 2(ee) Recommendation for control of spotted lanternfly on outside surfaces and around buildings within the states of CT, DE, MD, MA, NH, NJ, PA, RI, VT, and VA.

Mode of Action:

 As a sodium channel modulator, pyrethroids act on sodium channels of the nerve axon membrane, leading to paralysis and ultimately the death of the insect.









WISDOM TC FLOWABLE is an EPA registered product of AMVAC Chemical Corporation. Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your state agency responsible for pesticide registratic to ensure registration status.

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NUVAN® PROSTRIPS®

Dichlorvos 18.6%

Application Sites:

- For use in households* and industrial and commercial buildings
 - *Not for use in homes except closets, wardrobes, cupboards, garages, attics, enclosed crawl spaces, and storage units.
 - When following the bed bug Directions for Use, rooms may be treated (except in New York state).
- IRAC Group 1B insecticide



Effective Against:

 Ants, bed bugs, beetles, cockroaches, flies, flying insects, gnats, mosquitoes, moths, silverfish, and wasps

Mode of Action:

 Dichlorvos, an organophosphate insecticide, works by inhibiting acetylcholinesterase and ultimately paralyzing insect nervous systems

EPA Reg. No. 5481-553

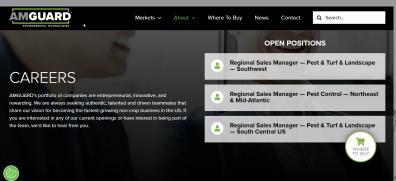
Item #	Size	Contents
12687	Case	6 boxes
12687	Box	6 foil pouches
12687	Foil Pouch	Twelve 16-gram strips

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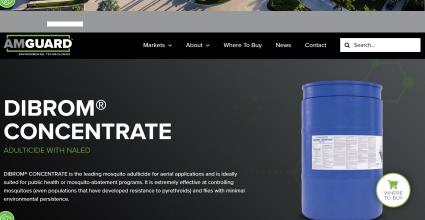




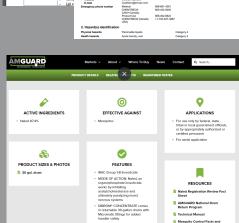




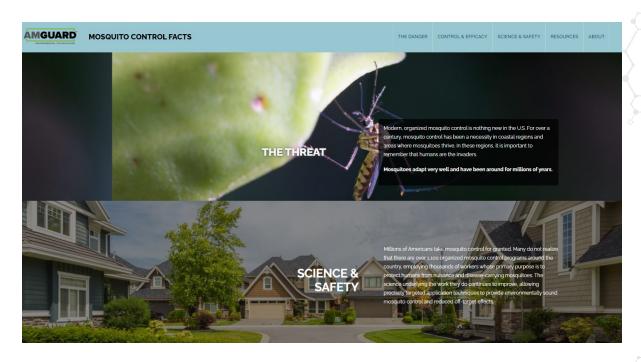












https://mosquitocontrolfacts.com/



AMVAC NORTH AMERICA

Warehousing and Manufacturing Sites





PREPARATION

Personal relationships are critical, and KEY for the foreseeable future.



- LTL—It is forecasted that <u>2022-23 LTL pricing will be up close to 10% over 2022</u>. Part of the reason for this
 is the softening demand we are seeing in the truckload market tied to slower retail sales as people are
 switching from ourchasing goods at stores to online services.
- TL we expect to continue to see downward pressure on trucking rates, especially in the spot market
 through much of the remainder of the year. Load to truck ratios have dropped to levels consistent with
 balance markets and the average line haul rate has fallen from over \$2.65/mile to current levels of around
 \$1.85. The reality is that we will see some tension return if a couple things happen:
 - (1) the influx of freight arriving at the ports from the COVID shutdowns in China will likely have an impact on costs as much of that inventory is late and companies will look to truck as opposed to rail to get inventory where it is needed.
 - (2) hurricane season is right around the corner and has the potential to have a rapid impact on costs but duration
 is unknown.
 - (3) Retail Shifts there will be a surge in demand that will impact the costs throughout 2023.
 - (4) a reduction in trucking companies. With spot market rates falling and costs of fuel, driver wages, maintenance
 and insurance rising, it is reasonable to expect regional companies will shut down. Usually this capacity finds its
 way back into the market but if demand continues to be soft, some of that equipment may not be available going
 into 2023. Our forecasts are constantly changing due to so many Manufacturing & Raw Materials variables but
 right now, we are expecting costs to be down 6-10% in the first half of 2023.

Loads to Capacity



52 US Trucking Capacity.

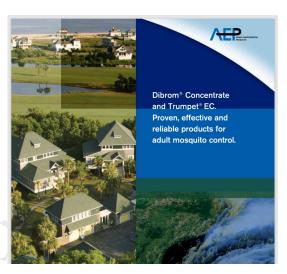




PREPARATION

Support Tools

- Closed System Drum Handling
 - · Micromatic Valves/Couplers
 - · Technical Resource Document
 - Worker Protection / Safety Procedures



Drum Disposal

 Prepared drums are picked up and disposed of at your convenience, and at our expense.





APPLICATOR SPOTLIGHT

Wingbeats



M DIBROM CONCENTRATE

MTRUMPET EC

LEADING AERIAL ADULTICIDES

AMMAC Environmental Products is committed to providing proven and trusted solutions for public health professionals. For more than 50 years, Dibrom® Concentrate has been the leading serial adulticide for mosquito control. Dibrom Concentrate and Timpnge® EC are proudly manufactured in the United States.

AM/AC Environmental Products appreciates the dedication, ingressly, and expertise of the scientists, pilots and ground support professionals who perform highly technical applications with a valve range of aircraft at an experision technology. Allo our camapiles in perfollar power technology and the innevative aircraft and equipment used to deploy product in an upocaming issue of Wing Beals. Contact Derek Wright, National So Manager, Public Health at Derek Westmanner. Corn or 94,173-7983.

places to Control Cont



Anastasia Mosquito Control District treated 27,000 acres with Dibrom in 2020, calibrated at .701 oz per acre. It is projecting the ability to disperse up to 90 gallons of Dibrom per shift, in 2021, as directed by the gathered scientific data.



MTRUMPET EC

LEADING AERIAL ADULTICIDES

AMMAC Environmental Products is committed to providing proven and trusted solutions for public health professionals. For more than 50 years, Dibrom® Concentrate has been the leading aerial adulticide for mosquito control. Dibrom Concentrate and Trumpet® EC are proudly manufactured in the United States.

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ADIBROM CONCENTRATE ATRUMPET EC

ERIAL ADULTICIDES

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THANK YOU

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