

Washington State Dept. of Agriculture (WSDA)

- WSDA is the lead authority for regulating pesticides.
- Products must have a legal use in Washington.
- There is no fee to apply for an SLN, Sec. 18, WSEUP
- Applications must include: written request /rational
 - Description of the pest problem (e.g. zebra mussel)
 - A list of the available pesticides currently registered for the use and reasons why they will not adequately control the pest.

| Product Name | EPA Reg. No. | Active Ingredient | Sites |
|--|--------------|--------------------------------------|--|
| Accu-Tab SI Calicum Hypochlorite Tablets | 748-295 | Calcium hypochlorite | Boat hulls, fish ponds, fish pond equipment; artificial sand beaches |
| Anthium Dioxide | 9150-2 | Chlorine dioxide | Once through cooling and waste water treatment systems |
| Biosperse XD9400 | 74655-19 | Sodium bromide | Once through cooling and waste water treatment systems |
| Copper Powder V900 | 2693-196 | Copper as elemental | Anti-fouling paint with Teflon |

Where can Zequanox be applied today?

Treatment Sites: Enclosed, semi-enclosed and other confined static or flowing water infrastructures. Treatment area must be a completely enclosed pipe or water conveyance system or concrete chamber with a defined inlet or outlet.

Examples: water storage chambers and tanks, pipes, plumbing, and other water conveyance structures (e.g. cooling water systems, contained water storage chambers of power plants, pump stations, irrigation systems, industrial facilities, and dams.

Current Use Restrictions / Tolerance Exemption

Use Restrictions: Treatment of open water, such as infested ponds, lakes, reservoirs, rivers and streams, or other unconfined aquatic systems, with ZEQUANOX® is prohibited.

Sec. 180.1304 – An exemption from the requirement of a tolerance is established for residues of *Pseudomonas fluorescens* strain CL145A in or on all food commodities when applied as a molluscicide.

Proposed Zequanox Label Amendments

Direct Application Into Water Bodies

- Marrone Bio has separate uses into two categories
 - Environmental Restoration: zebra mussel suppression to protect native mussels, etc.)
 - Recreational Area Restoration (beaches, marinas).
- Amended label and additional data supporting those uses was submitted to the EPA's, Microbial Pesticides Branch at the end of May 2013.
- Projected approval – March 2014.
- Treatment Sites: Static Water Treatment (e.g. [ponds, lakes](#))

| Stage | Max. Rate (oz ai/ gal water) | Max. Rate (mg ai/ L water) |
|------------------|------------------------------|----------------------------|
| Adult / juvenile | 0.0130 | 100 |
| Veliger | 0.0067 | 50 |

Treatment conc. for up to 8 hr in a continuous 24 hr period.

Data on non-target organisms with *Pseudomonas fluorescens* strain CL145A

Previous published reports

- Mode of action is intoxication (not infection)
- High dreissenid kill rates (>90%)

Environmental Safety Investigations

- Non-target trials demonstrate high specificity to dreissenids and efficacy under aerated conditions at 100 or 200 mg/L.
- No evidence of mortality *Daphnia magna*, three fish species and seven bivalve species.
- Additional testing can define margin of safety to other susceptible organisms

2013. Malloy et al. [Management of Biological Invasions \(2013\) Volume 4, Issue 1: 71-79](#)

Evaluating the Safety and Efficacy of *Pseudomonas fluorescens* Strain CL145A to Control Dreissenid Mussels

Minnesota Department of Natural Resources (DNR), the Wisconsin DNR, the U.S. Army Corps of Engineers and others plan to conduct pilot field efficacy trials.



Zebra mussels encrust a unionid mussel propagation cage (left) and a native mussel (right). Photos courtesy of Genoa National Fish Hatchery.

http://cida.usgs.gov/glri/projects/invasive_species/zm_control.html

Registration Requirements: SLN's

| Product Name | EPA Reg. No. | Active Ingredient | Sites |
|--------------|--------------|--|---|
| Zequanox | 84059-15 | <i>Pseudomonas fluorescens</i> strain CL145A | Recreational and Environmental Rehabilitation Static Water Trt: Ponds/ Lakes |

- Instructions for requesting a new SLN in WA is available in [WSDA's SLN Guidance](#).
- Other required documents
 - Data (e.g. residue efficacy)
 - ❑ [WSDA Aquatic Risk Assessment](#)
- EPA SLN form ([8570-25](#))
- SLN label



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AQUATIC RISK ASSESSMENT

| | | | | | |
|--------------------------|------------------------|--|---|----------------------------|-------------------|
| Pesticide Tradename: | | Chemical Name of Active Ingredient(s): | | EPA Reg. No.: | |
| Test Organism | Most Sensitive Species | Tech. grade a.i. (% purity) | Test Result: LC ₅₀ or EC ₅₀ Value (ppm) | Period of Exposure (hours) | MRID ¹ |
| Freshwater Fish | | | | | |
| Freshwater Invertebrates | | | | | |

¹Master Record Identification Number. EPA system of recording and tracking studies submitted.

Crop/Site Name: _____

| GENEEC 2 Model Input Parameters | Value (Data) | Reference Source (i.e. MRID) |
|---|--|--|
| Maximum Application Rate | (lbs. ai / acre) | (Maximum Requested Rate) |
| Maximum No. of Applications Per Year | | (Maximum Requested Number) |
| Minimum Interval Between Treatments | Days | (Requested Minimum) |
| Kd ¹ | | |
| Koc (Organic Carbon Fraction) | | |
| Maximum Aerobic Soil Metabolic Half-life | Days | |
| Is the pesticide incorporated with water? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Depth of Incorporation (Current label minimum) | Inches | |
| Method of Application | | |
| A. Aerial Spray <input type="checkbox"/> | B. Ground Spray <input type="checkbox"/> | C. Airblast Spray <input type="checkbox"/> |
| D. Granular (Non-spray) <input type="checkbox"/> | | |
| Aerial Spray | | |
| A. Very Fine to Fine <input type="checkbox"/> | Ground Spray – Nozzle Height | |
| B. Fine to Medium (EFED default) <input type="checkbox"/> | A. Low Boom (< 20 inches or less) <input type="checkbox"/> | |
| C. Medium to Coarse <input type="checkbox"/> | B. High Boom Ground Sprayer (< 20 to 50 inches: EFED default) <input type="checkbox"/> | |
| D. Coarse to Very Coarse <input type="checkbox"/> | Ground Spray – Droplet Size | |
| | A. Fine (EFED default) <input type="checkbox"/> | |
| | B. Medium-Coarse <input type="checkbox"/> | |
| Airblast Spray | | |
| A. Orchards/Dormant Vineyards <input type="checkbox"/> | | |
| B. Foliated Vineyards <input type="checkbox"/> | | |

State specific requirements for SLN Labels

WSDA may register SLN labels if it complies with RCW [16-228-1400](#).

- **FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF WASHINGTON.**
- **Expiration date statement:** This label for (Product name) expires and must not be distributed or used in accordance with this SLN registration after December 31, (year).
- **DIRECTIONS FOR USE:** Crop/site, pest(s) to be controlled (in Washington), application rate, method of application, etc.
- **Applicable state restrictions or precautionary statements**
 - aquatic toxicity
- **Label identification code** (such as the revision date).
- Any other applicable information required by WSDA.

What are the requirements for SLN Labels?

62719-621_Entrust SC_20120607_WA-120008.pdf



Dow AgroSciences LLC

9330 Zionsville Road

Indianapolis, IN 46268-1054 USA

FIFRA 24(c) Special Local Need Label (SLN)

For Distribution and Use Only in the State of Washington
Control of Spotted Wing Drosophila in Cherry

Entrust[®] SC

EPA Reg. No. 62719-621

SLN WA-120008

This label expires and must not be distributed or used in accordance with this SLN registration after
December 31, 2013

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This state-specific Section 24(c) labeling must be in the possession of the user at the time of application.
- Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on the EPA registered label.

Refer to product label for Entrust SC for Use Precautions, Mixing Directions, and Application Directions.

Application Timing: Treat when pests appears and crop is becoming susceptible (e.g., around the blush or pink stage) to spotted wing drosophila (SWD). Fruits become more susceptible as harvest approaches. Later harvested cultivars are at greater risk from SWD.

Application Rate: Apply 4.8 to 8 fl oz of Entrust SC per acre as a foliar spray to control spotted wing drosophila. Use a higher rate in the rate range for moderate to severe pest infestations. Heavy infestations may require repeat applications, but follow resistance management guidelines.

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 3 days of harvest.
- Allow at least 7 days between applications.
- Do not apply more than 8 fl oz of Entrust SC (0.125 lb ai) per acre per application.
- Do not apply more than a total of 16 fl oz of Entrust SC (0.25 lb ai) per acre within 10 days of harvest

Requirements for Emergency Exemptions

- Instructions for Requesting an Emergency Exemption are provided in [WSDA's Section 18 Guide \(AGR-PUB 631-226\)](#)
- Normally submitted by consultants, WSU researcher or extension specialist, or commodity representative.
 - ❑ Justification for urgent and non-routine situation
 - ❑ Applicant must demonstrate availability of effective registered pesticides (e.g. search [WSU's PICOL database](#)).
 - ❑ Residue and efficacy data from WA, OR, ID
 - ❑ WSDA Aquatic Risk Assessment form
 - ❑ Progress towards registration
 - ❑ Demonstrate significant economic loss (SEL)
 - ❑ Timelines for submission to WSDA
 - ✓ Submit repeat requests at least 80 days prior to earliest use
 - ✓ **Submit new requests at least 120 days prior to earliest use**