

2001/2002

**Salmosan® 50WP**

**RESTRICTED  
INSECTICIDE**

**Wettable Powder (WP) Insecticide for the Control of Sea Lice  
on Fish Reared in Marine Aquaculture Sites in Eastern Canada.**

**NET CONTENTS: 5 X 20 grams**

**GUARANTEE:**

azamethiphos.....50% w/w

**READ THE ENTIRE BOOKLET BEFORE USING**

**KEEP OUT OF REACH OF CHILDREN**

REGISTRATION NO.: 24528  
PEST CONTROL PRODUCTS ACT

**IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL,  
FIRE OR POISONING CALL 1-800-267-6351**

**DO NOT SELL THE WATER SOLUBLE BAGS INDIVIDUALLY**

Novartis Animal Health Canada Inc.  
2233 Argentia Rd. Suite 200  
East Tower  
Mississauga, Ontario  
L5N 2X7

NOVARTIS

SALMOSAN 50WP is packed in 20 gram water soluble bags. Each water soluble bag is packed individually in a pouch. A carton contains five pouches. Twenty grams of SALMOSAN 50WP will treat 100 m<sup>3</sup> of water.

Do not touch water soluble bags with wet gloves as they will dissolve. Do not open water soluble bags. The water soluble bag should be dropped straight into the mixing container. Store above freezing in a dry location. Prolonged storage at temperatures below 0EC may cause the water soluble bag to become brittle.

**NOTICE TO BUYER:** Seller's guarantee shall be limited to the terms set on the label and subject thereto, the buyer assumes

the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

**FIRST AID:** If you have breathing problems or if you have felt persistently unwell after using a product containing an organophosphorous compound, you should consult your doctor before working with SALMOSAN 50WP.

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, seek medical advice immediately.

Tell de doctor you have been using SALMOSAN 50WP which contains azamethiphos, an organophosphorous compound.

**Ingestion:** Medical aid necessary. Prevent exertion. CALL DOCTOR AT ONCE or Poison Control Centre and retain the label. Watch respiration and institute artificial respiration at first signs of respiratory failure.

**Skin contact:** Wash hands and exposed skin with soap and water.

**Eye contact:** Flush with clean water for 15 - 20 minutes. Seek medical advice.

**Inhalation:** Remove to fresh air. Keep at rest and keep warm.

**PRECAUTIONS:** KEEP OUT OF REACH OF CHILDREN. May cause sensitization by inhalation and skin contact. Avoid all contact by mouth, with skin or eyes.

Accidental splashes on exposed skin or eyes should be washed off immediately with plenty of water. Wash hands, face and exposed skin before eating, drinking, or smoking, and after leaving the work area. Wash all protective clothing thoroughly after use, especially the inside of gloves.

Wear suitable protective clothing (waterproof coveralls) suitable protective gloves (heavy duty gauntlet style nitrile or chemical-resistant gloves at least 300 mm in length and 0.5 mm thick are recommended), and face protection (face shield) when mixing and handling this product and when applying the diluted chemical to the pen.

Renew protective clothing and gloves regularly and certainly when cracking or damage has occurred.

Store in the original, unopened packaging in a well-ventilated room. Store in a dry place. Protect from sun and humidity.

Avoid contamination of food, feed and domestic water supplies.

**ENVIRONMENTAL HAZARDS:**

1. SALMOSAN 50WP is dangerous to many organisms. The fastest and therefore most important detoxification mechanism in coastal waters is dilution which is increased by water

movements, including the flushing effect of sea tides.

2. SALMOSAN 50WP is dangerous to fish and other aquatic organisms in the **concentrated form or improper use dilutions**. Do not contaminate ponds, streams, or inlets with product or used packaging.

**PRODUCT DECONTAMINATION AND DISPOSAL:**

1. Make the empty pouch unsuitable for further use.
2. Dispose of the pouch in accordance with the provincial requirements.
3. For information on the disposal of unused, unwanted product, and the cleanup of spills, contact the Provincial Regulatory Agency or Novartis Animal Health Canada Inc.

**TOXICOLOGICAL INFORMATION:** The symptoms of mild poisoning from organophosphorous compounds are a feeling of exhaustion and weakness which may be accompanied by cramp-like abdominal pains, diarrhoea, excessive sweating, constricted pupils and salivation up to 24 hours after exposure. Severe poisoning can cause general muscle twitching and convulsions. Azamethiphos is a Cholinesterase inhibitor. Antidote: Atropine under medical supervision. Inject 2 to 4 mg atropine sulphate (for children 0.5 to 2 mg according to age) i.v. or i.m. every 5 to 10 minutes until signs of atropinisation occur. The patient must remain atropinised for a sufficient length of time (24 to 48 hours) to prevent subsequent poisoning due to delayed resorption.

**NOTICE TO USER:** This control product is to be used only in accordance with the directions on this label. It is an offence under the **PEST CONTROL PRODUCTS ACT** to use a control product under unsafe conditions.

**NATURE OF RESTRICTION:** For use in the control of sea lice causing damage in fish farm production (marine aquaculture) under the supervision of fish veterinarians and certified pesticide applicators as defined by provincial permit conditions. Please refer to the section Threshold Limit for Sea Lice which was developed in conjunction with provincial authorities in support of the sea management strategies.

**RESTRICTED USE:**

**DIRECTION FOR USE:**

**General information:** SALMOSAN 50WP should be applied to salmon infested with mature (pre-adult or adult) sea lice (*Lepeophtheirus salmonis* or *Caligus elongatus*) **before the stage at which serious skin damage is evident**. Mortality may

occur where fish are severely stressed or injured. The exact timing of a treatment programme is a matter of expertise and judgement, operators must seek the advice of the prescribing fish veterinarian. Do not use SALMOSAN 50WP prophylactically. Use only when infestation has been diagnosed.

**Threshold Limit for Sea Lice:** Treatment is considered necessary when in individual fish pens a total of 40 - 100 pre-adult or adult lice or a total of 5 gravid females are present on a 20 fish sample.

**Timing of application:** SALMOSAN 50WP does not affect juvenile attached sea lice including most chalimus stages which may be present with the pre-adult and adult stages. These juvenile stages will develop into pre-adults and adults in 10 to 20 days, when a population count should show whether a second treatment is necessary. Re-treatment will depend on the monitoring of fish pens and whether the sea lice levels exceed the Threshold Limit.

Do not treat within 48 hours of slaughter.

**Application rates:** Fish infested with sea lice should be bathed in 0.2 ppm SALMOSAN 50WP (0.1 ppm azamethiphos) for a period of not less than 30 minutes and not more than 60 minutes.

**Note:** Initial dilution of SALMOSAN 50WP when formulated in water at pH of 5.5 or less is stable for at least 5 days. Oxygenation must be provided during treatment. Vigorous oxygenation is recommended in the treatment cage. Where several cages are to be treated a large reservoir of oxygen bottles should be available. During treatment, careful observation of fish behaviour must be maintained. If signs of distress, e.g. fish falling on their sides, occur, remove tarpaulin and ensure vigorous oxygenation of the water.

**Note:** At water temperatures above 10°C, it is advisable to limit treatment periods to 30 minutes.

#### **Instructions for use:**

**Note: Maximum use rate:** In order to prevent or reduce adverse affects to sensitive aquatic life, the maximum amount of SALMOSAN 50WP used in an aquaculture site is 48 bags (i.e. 960 grams) per day.

Twenty grams of SALMOSAN 50WP will treat 100 m<sup>3</sup> of water. Follow introduction procedure to fish pens under tarpaulin (bath) treatment. The pen size, numbers of fish, age and size of the fish and depth of DRY UP\* (amount of water in the pen using a tarpaulin to reduce water volume) can affect the amount of SALMOSAN 50WP needed to treat each pen. Timing for best treatment should consider tidal movements (flushing

rates) at the site which could affect dispersal of SALMOSAN 50WP once the tarpaulin are removed.

Prior to treatment, operators wearing suitable equipment and protective clothing (See PRECAUTIONS) should pre-mix the required number of water soluble bags of SALMOSAN 50WP into a mixing container containing a minimum of 50 litres of sea water to ensure the solubags dissolve. Ensure adequate agitation during application. If treatment is not conducted immediately after the initial dilution is made, re-suspension is necessary. Screw the lid tightly onto the container and gently shake this initial dilution for up to 5 minutes.

When fish are ready to be treated, the diluted suspension of SALMOSAN 50WP should be immediately and carefully added to the café by pouring or pumping the mixture into the water at the oxygen diffuser points using The Bath Technique.

**The Bath Technique:** In this technique, the depth of the fish cage net is reduced to a known depth at the centre, e.g. 2 metres, and a tarpaulin placed around the net so that it is totally enclosed. Ensure the base of the cage is not drooping when in the raised position as fish may congregate and come to harm. Oxygen is immediately bled into the system and diluted SALMOSAN 50WP is added. After 30 to 60 minutes the tarpaulin is removed. Use an oxygen meter throughout treatment period. This chart is for information and can act as a guide to the amount of SALMOSAN 50WP needed. The amount to be used in individual pens will be the responsibility of the certified applicator based on the side conditions as described above.

| Type of Pen | Size - Approximate Amount of Water in Pen (m <sup>3</sup> ) (Full Volume) | Numbers of Fish (1000's) Holding Capacity of Pen Based on Market Sized Fish | Estimated Number of Bags (Amount (g) of SALMOSAN 50WP necessary per Pen Type in Half Volume (DRY UP) * |
|-------------|---|---|--|
|-------------|---|---|--|

|               |                |                      |       |         |
|---------------|----------------|----------------------|-------|---------|
| 9.5 m octagon | 3              | 400 m                |       | 2 bags  |
| 12 m square   |                |                      | 2     | (40 g)  |
| 50 m polar    |                | 600                  |       | 3 bags  |
| 70 m polar    | m <sup>3</sup> |                      | 4     | (60 g)  |
| 80 m polar    |                | 1,000 m <sup>3</sup> |       | 6 bags  |
| 100 m Circle  |                | 2,000 m <sup>3</sup> | 7     | (120 g) |
|               |                | 3,000 m <sup>3</sup> | to 9  | 12 bags |
|               |                | 5,000 m <sup>3</sup> | 9     | (240 g) |
|               |                |                      | to 25 | 15 bags |
|               |                |                      | 15    | (300 g) |
|               |                |                      | to 30 | 24 bags |
|               |                |                      | 25    | (480 g) |
|               |                |                      | to 35 |         |

\* Rate based on maximum 0.1 ppm azamethiphos or 100 mg/m<sup>3</sup>.

Figures reflect volume DRY UP to ½ pen volume in Bath Treatment, one needs to take in consideration: pen size, numbers of fish, age and size of the first, and amount to DRY UP.

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