

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUN 21 1994

William H. Culpepper  
 SePRO Corporation  
 11550 N. Meridan, Suite 200  
 Carmel, IN 46032

Dear Mr. Culpepper:

Subject: Revised Labeling - Control Eurasian Watermilfoil on Whole  
 Lake or Reservoir Treatments  
 Sonar A.S. Herbicide  
 EPA Registration No. 67690-4  
 Your Submission Dated January 17, 1994

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following provisions:

- 1) The percentages of the active and inert ingredients should be aligned by the decimal point.
- 2) Make the following changes to the labeling to reflect the transfer of this product from DowElanco to SePRO:
  - a) Revise the EPA Registration Number to read "EPA Registration No. 67690-4".
  - b) Add the EPA Establishment Number appropriate for SePRO.
  - c) Revise the company name and address present on the labeling to be correct for SePRO.
- 3) Add the appropriate Net Contents statement.
- 4) Under the directions for use on whole lake or reservoir treatments, delete the phrase "...provided that use of potable water from within the treated area is delayed for 24 hours." This restriction is considered to be neither practical nor enforceable.
- 5) Due to the nature of the use of this product in close proximity to water supplies, the issue of resulting taste and odor problems must be addressed. Taste and odor problems may arise as a consequence of the disinfection by-products or from decay of the treated vegetation. Your response to this item is required within thirty (30) days of the receipt of this letter.

CONCURRENCES

SYMBOL	7505C							
SURNAME	D. KENNY							
DATE	6/21/94							

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). A stamped copy is enclosed for your records. Please submit five (5) final printed copies for the referenced label, incorporating the above changes, before releasing the product for shipment.

Sincerely yours,

Joanne I. Miller  
Product Manager (23)  
Fungicide-Herbicide Branch  
Registration Division (7505C)

Enclosure

CONCURRENCES							
INITIALS							
SURNAME							
DATE							

[Front Datapack -- Sonar AS, 1gal]

[Developed per EPA copy of 7/21/92, 8/27/92, & 5/12/93]  
[This front datapack supersedes 900-000262 & 900-000263]

(logo) DowElanco

# Sonar\* A.S.

**A herbicide for management of aquatic vegetation in fresh water ponds, lakes, reservoirs, drainage canals and irrigation canals**

Active Ingredient:

fluridone: 1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone . 41.7%

Inert Ingredients . 58.3%

Contains 4 pounds active ingredient per gallon.

**Keep Out of Reach of Children**

## CAUTION

**Refer to inside of label booklet for additional precautionary information and directions for use including storage and disposal.**

**Notice:** Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

**Shake well before using.**

EPA Reg. No. 62719-124

20158

79 76

EPA Est. 1471-IN-5; 37429-GA-01

Superscripts correspond to places 7 & 8 of lot number.

900-002104

\*Trademark of DowElanco

Produced for:

DowElanco • Indianapolis, IN 46268, U.S.A.

**Specialty Herbicide**

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

JUN 21 1994

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

67690-4

[Booklet, page 1]

---

## **Precautionary Statements**

---

### **Hazards to Humans and Domestic Animals**

#### **Keep Out of Reach of Children**

#### **CAUTION            PRECAUCION:**

**Precaucion al usarlo:** Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

#### **Harmful If Swallowed, Absorbed Through Skin, Or if Inhaled**

**Avoid breathing of spray mist or contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Wash exposed clothing before reuse.**

#### **First Aid**

**If In eyes:** Flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**If swallowed:** Call a physician or poison control center, drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**If Inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

#### **Environmental Hazards**

**Follow use directions carefully so as to minimize adverse effects on nontarget organisms. In order to avoid impact on threatened or endangered aquatic plant or animal species, users must consult their State Fish and Game Agency or the U.S. Fish and Wildlife Service before making applications.**

**Do not contaminate water when disposing of equipment washwaters. Trees and shrubs growing in water treated with Sonar A.S. herbicide may occasionally develop chlorosis. Do not apply in tidewater/brackish water.**

**Lowest rates should be used in shallow areas where the water depth is considerably less than the average depth of the entire treatment site, for example, shallow shoreline areas.**

---

### **Directions for Use**

---

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

Read all Directions for Use carefully before applying.

**Shake well before using.**

### **Storage and Disposal**

Do not contaminate water, food, or feed by storage or disposal.

**Storage:** Store in original container only. Do not store near feed or foodstuffs. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

**Pesticide Disposal:** Wastes resulting from use of this product may be used according to label directions or disposed of at an approved waste disposal facility.

**Container Disposal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### **General Information**

Sonar A.S. herbicide is a selective systemic aquatic herbicide for management of aquatic vegetation in fresh water ponds, lakes, reservoirs, drainage canals and irrigation canals. Sonar A.S. is absorbed from water by plant shoots and from hydrosol by the roots of aquatic vascular plants. It is important to maintain the recommended concentration of Sonar A.S. in contact with the weeds as long as possible. Rapid water movement or any condition which results in rapid dilution of Sonar A.S. in treated water will reduce its effectiveness. In susceptible plants, Sonar A.S. inhibits the formation of carotene. In the absence of carotene, chlorophyll is rapidly degraded by sunlight. Herbicidal symptoms of Sonar A.S. appear in seven to ten days and appear as white (chlorotic) or pink growing points. Under optimum conditions 30 to 90 days are required before the desired level of aquatic weed management is achieved with Sonar A.S. Species susceptibility to Sonar A.S. may vary depending on time of year, stage of growth, and water movement. For best results, apply Sonar A.S. prior to initiation of weed growth or when weeds begin active growth.

Sonar A.S. is not corrosive to application equipment.

### **General Use Precautions**

**Obtain Required Permits:** Consult with appropriate state or local water authorities before applying this product. Permits may be required by state or local public agencies.

**Chemigation:** Do not apply Sonar A.S. through any type of irrigation system.

**Potable Water Intakes:** In lakes and reservoirs, do not apply Sonar A.S. within one-fourth mile (1320 feet) of any functioning potable water intake. Note: Existing potable water intakes which are no longer in use, such as those replaced by potable water wells or connections to a municipal water system, are not considered to be functioning potable water intakes.

**BEST AVAILABLE COPY**

**Irrigation:** Irrigation with water treated with Sonar A.S. may result in injury to the irrigated vegetation. DowElanco recommends informing those who irrigate from areas treated with Sonar A.S. of the irrigation time frames presented in the table below. These time frames are suggestions which should be followed to reduce the potential for injury to vegetation irrigated with water treated with Sonar A.S.:

Application Site	Days After Application		
	Established Tree Crops	Established Row Crops/ Turf/Plants	Newly Seeded Crops/Seedbeds or Areas to be Planted Including Overseeded Golf Course Greens
†Ponds and Static Canals	7	30	30
Canals	7	14	30
††Lakes and Reservoirs	7	14	14

†For purposes of Sonar A.S. labeling, a pond is defined as a body of water 10 acres or less in size. A lake or reservoir is greater than 10 acres.

††In lakes and reservoirs where one-half or greater of the body of water is treated, use the pond and static canal irrigation restrictions.

## Weed Control Information

### Vascular Aquatic Plants Controlled by Sonar A.S.

#### Floating Plants:

Common duckweed (*Lemna minor*)†

#### Emersead Plants:

spatterdock (*Nuphar luteum*)

water-lily (*Nymphaea* spp.)

†Controlled only with a surface application of Sonar AS.

#### Submersed Plants:

bladderwort (*Utricularia* spp.)

common ccontail (*Ceratophyllum demersum*)

common elodea (*Elodea canadensis*)

egeria, Brazilian elodea (*Egeria densa*)

fanwort, cabomba (*Cabomba caroliniana*)

hydrilla (*Hydrilla verticillata*)

naiad (*Najas* spp.)

pondweed (*Potamogeton* spp., except Illinois pondweed)

watermilfoil (*Myriophyllum* spp.)

**Shoreline Grasses:**paragrass (*Brachiana mutica*)**Vascular Aquatic Plants Partially Controlled by Sonar A.S.**

alligatorweed (*Alternanthera philoxeroides*)  
 American lotus (*Nelumbo lutea*)  
 cattail (*Typha* spp.)  
 common watermeal (*Wolffia columbiana*)††  
 creeping waterprimrose (*Ludwigia peploides*)  
 giant cutgrass (*Zizaniopsis miliacea*)  
 Illinois pondweed (*Potamogeton illinoensis*)  
 parrotfeather (*Myriophyllum brasiliense*)  
 reed canarygrass (*Phalaris arundinaceae*)  
 smartweed (*Polygonum* spp.)  
 spikerush (*Eleocharis* spp.)  
 southern watergrass (*Hydrochloa caroliniensis*)  
 torpedograss (*Panicum repens*)  
 waterpurslane (*Ludwigia palustris*)  
 watershield (*Brasenia schreberi*)

††Partial control only with a surface application of Sonar A.S. at the maximum labeled rate.

**Vascular Aquatic Plants Not Controlled by Sonar A.S.**

algae (*Chara* and *Nitella*)  
 American frogbit (*Limnobium spongia*)  
 arrowhead (*Sagittaria* spp.)  
 bacopa (*Bacopa* spp.)  
 big floatingheart, banana lily (*Nymphoides aquatica*)  
 bulrush (*Scirpus* spp.)  
 floating waterhyacinth (*Eichhornia crassipes*)  
 maidencane (*Panicum hemitomon*)  
 pickerelweed, lanceleaf (*Pontederia cordata*)  
 rush (*Juncus* spp.)  
 tapegrass, American eelgrass (*Valisneria americana*)  
 waterlettuce (*Pistia stratiotes*)  
 water pennywort (*Hydrocotyle umbellata*)

**Mixing and Application Directions**

The aquatic plants present in the treatment site should be identified prior to application to determine their susceptibility to Sonar A.S. It is important to determine the area (acres) to be treated and the average depth in order to select the proper application rate. Do not exceed the maximum labeled rate for a given treatment site per annual growth cycle.

**Shake Sonar A.S. well before using.** Add the recommended amount of Sonar A.S. to water in the spray tank during the filling operation. Agitate while filling and during spraying. Surface or subsurface application of the spray can be made with conventional spray equipment. Sonar A.S. can also be applied near the surface of the hydrosol using weighed trailing hoses. A spray volume of 5 to 100 gallons per acre may be used. Sonar A.S. may also be diluted with water and the concentrated mix metered into the pumping system.

**BEST AVAILABLE COPY**

**Application to Ponds**

Sonar A.S. may be applied to the entire surface area of a pond. Rates may be selected to provide 0.06 to 0.09 ppm of active ingredient in the treated water. Application rates necessary to obtain these active ingredient concentrations in treated water are shown in the following table. When average water depth of the treatment site is greater than 5 feet, apply 1 to 1.5 quarts of Sonar A.S. per treated surface acre.

Average Water Depth of Treatment Site (feet)	Quarts of Sonar A.S. per Treated Surface Acre
1	0.16 - 0.25
2	0.33 - 0.50
3	0.50 - 0.75
4	0.65 - 1.00
5	0.80 - 1.25

Use the higher rate within the rate range where there is a dense weed mass or when treating more difficult to control species.

**Application to Lakes and Reservoirs**

For best results in lakes and reservoirs, Sonar A.S. treatment areas should be a minimum of 5 acres in size. Treatment of areas smaller than 5 acres or treatment of narrow strips such as boat lanes or shorelines may not produce satisfactory results due to dilution by untreated water. In lakes and reservoirs, do not apply Sonar A.S. within one-fourth mile (1320 feet) of any functioning potable water intake.

Rates may be selected to provide 0.075 to 0.15 ppm of active ingredient in the treated water. Application rates necessary to obtain these active ingredient concentrations in treated water are shown in the following table. When average water depth of the treatment site is greater than 10 feet, apply 3 to 4 quarts of Sonar A.S. per treated surface acre.

Average Water Depth of Treatment Site (feet)	Quarts of Sonar A.S. per Treated Surface Acre
1	0.2 - 0.4
2	0.4 - 0.8
3	0.6 - 1.2
4	0.8 - 1.6
5	1.0 - 2.0
6	1.2 - 2.4
7	1.4 - 2.8
8	1.6 - 3.2
9	1.8 - 3.6
10	2.0 - 4.0

Use the higher rate within the rate range where there is a dense weed mass or when treating more difficult to control species.



**Use Rates for Control of Eurasian Watermillfoil in Whole Lake or Reservoir Treatments:**  
The following application rates may be used for control of Eurasian watermillfoil when treating lakes or reservoirs where little dilution with untreated water is expected to occur. Under these conditions, Sonar may be applied to provide a concentration of 0.01 to 0.02 ppm (10 to 20 ppb) of active ingredient in treated water. Application rates necessary to achieve these active ingredient concentrations in treated water are shown in the following table. For optimum control, it is recommended that applications be made early in the growing season.

<u>Average Water Depth of Treatment Site (feet)</u>	<u>Quarts of Sonar A.S. per Treated Surface Acre</u>
1	0.027 - 0.05
2	0.05 - 0.11
3	0.08 - 0.16
4	0.11 - 0.22
5	0.14 - 0.27
6	0.16 - 0.32
7	0.19 - 0.38
8	0.22 - 0.43
9	0.24 - 0.49
10	0.27 - 0.54

When treated with these use rates, other less susceptible species listed under Aquatic Plants Controlled may exhibit only temporary injury or stunting followed by recovery and normal growth. These 0.01 to 0.02 ppm rates may be applied where functioning potable water intakes are present provided that use of potable water from within the treated area is delayed for 24 hours. Note: When applications for management of Eurasian watermillfoil are made to only portions of lakes or reservoirs such as bays or fingers of these water bodies, the higher rates and use directions listed on this label for Applications to Lakes and Reservoirs are recommended.

#### **Application Rate Calculation - Ponds, Lakes and Reservoirs**

The amount of Sonar A.S. to be applied to provide the desired ppm concentration of active ingredient in treated water may be calculated as follows:

Quarts of Sonar A.S. required per treated surface acre = Average water depth of treatment site (feet) x Desired ppm concentration of active ingredient x 2.7

For example, the quarts per acre of Sonar A.S. required to provide a concentration of 0.075 ppm of active ingredient in water with an average depth of 5 feet is calculated as follows:

$5 \times 0.075 \times 2.7 = 1.0$  quart per treated surface acre.

When measuring quantities of Sonar A.S., quarts may be converted to fluid ounces by multiplying quarts to be measured x 32. For example, 0.25 quarts x 32 = 8 fluid ounces.

**Note:** Calculated rates should not exceed the maximum allowable rate in quarts per treated surface acre for the water depth listed in the application rate table for the site to be treated

#### **Application to Drainage Canals and Irrigation Canals**

In drainage and irrigation canals, Sonar A.S. should be applied at the rate of 2 quarts per treated surface acre. Where water retention is possible, the performance of Sonar A.S. will be enhanced by restricting water flow. In moving bodies of water, use an application pattern that will provide a uniform distribution and avoid concentration of the herbicide.

**BEST AVAILABLE COPY**

---

### **Warranty Disclaimer**

---

DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DOWELANCO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

---

### **Inherent Risks of Use**

---

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by Buyer.

---

### **Limitation of Remedies**

---

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

- (1) Refund of purchase price paid by buyer or use for product bought, or
- (2) Replacement of amount of product used.

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

Copyright © 1993 DowElanco

(Base Label of Datapack)

(logo) DowElanco

## Sonar\* A.S.

A herbicide for management of aquatic vegetation in fresh water ponds, lakes, reservoirs, drainage canals and irrigation canals

Active Ingredient:

fluridone: 1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1*H*)-pyridinone . 41.7%

Inert Ingredients . 58.3%

Contains 4 pounds active ingredient per gallon.

---

### Precautionary Statements

---

#### Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

### CAUTION

Harmful If Swallowed, Absorbed Through Skin, Or If Inhaled

Avoid breathing of spray mist or contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Wash exposed clothing before reuse.

#### First Aid

**If in eyes:** Flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**If swallowed:** Call a physician or poison control center, drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**If inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

#### Environmental Hazards

Follow use directions carefully so as to minimize adverse effects on nontarget organisms. In order to avoid impact on threatened or endangered aquatic plant or animal species, users must consult their State Fish and Game Agency or the U.S. Fish and Wildlife Service before making applications. See additional **Environmental Hazards under Precautionary Statements inside label booklet.**

**Refer to inside of label booklet for additional precautionary information and Directions for Use including Storage and Disposal**

**BEST AVAILABLE COPY**

**Notice:** Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.**

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

**Shake well before using.**

EPA Reg. No. 62719-124

20158

79                      76  
EPA Est. 1471-IN-5; 37429-GA-01  
Superscripts correspond to places 7 & 8 of lot number.  
900-002104

\*Trademark of DowElanco

Produced for:

**DowElanco** • Indianapolis, IN 46268, U.S.A.

**Specialty Herbicide**