

12 MAY 1993

Jacqueline S. Wujek, Ph.D.
 DowElanco
 9002 Purdue Road, Quad IV
 Indianapolis, Indiana 46268

Dear Dr. Wujek:

Subject: Label Amendment - Note on "Functioning" potable water intake
 Sonar SRP and Sonar A.S.
 EPA Registration Number 62719-123 and 62719-124

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

The statement you are adding to describe what is meant by a "functioning" potable water intake must be written with bold lettering.

A stamped label is enclosed for your records. Please submit three (3) copies of final printed labeling, with the above correction made, prior to releasing the product for shipment.

Sincerely yours,

Joanne I. Miller
 Product Manager (23)
 Fungicide-Herbicide Branch
 Registration Division (H7505C)

Enclosure

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CONCURRENCES							
SYMBOL	H7505C						
SURNAME	Robbins						
DATE	5/12/93						

 **DowElanco**

Sonar* SRP

Vegetation
Management

Specialty Herbicide

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

Active ingredient:

fluridone: 1-methyl-3-phenyl-5-[3-(trifluoromethyl)
phenyl]-4(1H)-pyridinone5.0%
Inert ingredients95.0%
Total100.0%

Contains 2 pounds active ingredient per 40-pound container.

_____*Trademark of DowElanco
EPA Reg. No. 62719-123
EPA Est. 39578-TX-1
Net Weight 40 pounds

Precautionary Statements

Hazards to Humans and Domestic Animals:
Keep Out of Reach of Children

CAUTION / PRECAUCION:

Precaucion al usuario: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

Harmful If Swallowed, Absorbed Through Skin, Or If Inhaled

Avoid breathing of dust 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 SRP 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.

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

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

Specialty Chemical: Keep away from food, feed-stuffs and water supplies. Do not ship or store with food, feeds, drugs or clothing.

with COMMENTS
in EPA Letter Dated:

12 MAY 1993

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
62719-123

Sonar* SRP

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Directions for Use:

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

Read all Directions Carefully Before Applying Sonar SRP.

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, contain material 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 by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

General Information

Sonar SRP herbicide is a selective systemic aquatic herbicide for management of aquatic vegetation in fresh water ponds, lakes, reservoirs, drainage canals, irrigation canals, and rivers. Sonar SRP is a pelleted formulation containing 5% fluridone. Sonar SRP 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 SRP in contact with the weeds as long as possible. Rapid water movement or any condition which results in rapid dilution of Sonar SRP in treated water will reduce its effectiveness. In susceptible plants, Sonar SRP inhibits the formation of carotene. In the absence of carotene, chlorophyll is rapidly degraded by sunlight. Herbicidal symptoms of Sonar SRP 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 SRP. Species susceptibility to Sonar SRP may vary depending on time of year, stage of growth and water movement. For best results, apply Sonar SRP prior to initiation of weed growth or when weeds begin active growth.

Sonar SRP is not corrosive to application equipment.

Special 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.

Potable Water Intakes: In lakes and reservoirs, do not apply Sonar SRP within one-fourth mile (1320 feet) of any functioning potable water intake.

Irrigation: Irrigation with Sonar SRP treated water may result in injury to the irrigated vegetation. DowElanco recommends informing those who irrigate from Sonar SRP treated areas 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 Sonar SRP treated water.

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.

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 Courses & Greens
¹ Ponds and Static Canals	7	30	30
Canals	7	7	30
Rivers	7	7	7
² Lakes and Reservoirs	7	7	7

¹For purposes of Sonar SRP 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.

²In 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 SRP:

Submersed Plants:

Bladderwort (*Utricularia* spp.)
Common coontail (*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 (*Bracharia mutica*)

Vascular Aquatic Plants Partially Controlled by Sonar SRP:

Alligatorweed (*Alternanthera philoxeroides*)
American lotus (*Nelumbo lutea*)
Cattail (*Typha* spp.)
Creeping Waterprimrose (*Ludwigia peploides*)
Giant cutgrass (*Zizaniopsis miliacea*)
Illinois pondweed (*Potamogeton illinoensis*)
Parrotfeather (*Myriophyllum brasiliense*)
Reed Canarygrass (*Phalaris arundinacea*)
Smartweed (*Polygonum* spp.)
Spatterdock (*Nuphar luteum*)
Spikerush (*Eleocharis* spp.)
Southern watergrass (*Hydrochloa carolinensis*)
Torpedograss (*Panicum rapense*)
Waterlily (*Nymphaea* spp.)
Waterpurslane (*Ludwigia palustris*)
Waterhield (*Brasenia schreberi*)

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Vascular Aquatic Plants Not Controlled by Sonar SRP:

Algae (*Chara* and *Najas*)
 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 (*Vallisneria spiralis*)
 Waterlettuce (*Pistia stratiotes*)
 Water pennywort (*Hydrocotyle umbellata*)

Application Directions

The aquatic plants present in the treatment site should be identified prior to application to determine their susceptibility to Sonar SRP. 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.

Application to Ponds

Sonar SRP may be applied to the entire surface area of a pond. Rates may be selected which are equivalent to addition of 0.06 to 0.09 ppm of active ingredient to the treated water, although actual concentrations in treated water may be substantially lower at any point in time due to the slow-release formulation of this product. Application rates of Sonar SRP necessary to obtain these active ingredient equivalents in treated water are shown in the following table. When average water depth of the treatment site is greater than 5 feet, apply 20 to 30 pounds of Sonar SRP per treated surface acre.

Average Water Depth of Treatment Site (feet)	Pounds of Sonar SRP per Treated Surface Acre
1	3.2 - 5
2	6.5 - 10
3	10 - 15
4	13 - 20
5	16 - 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 SRP 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 SRP within one-fourth mile (1320 feet) of any functioning potable water intake.

Rates may be selected which are equivalent to addition of 0.075 to 0.15 ppm of active ingredient to the treated water, although actual concentrations in treated water may be substantially lower at any point in time due to the slow-release formulation of this product. Application rates of Sonar SRP necessary to obtain these active ingredient equivalents in treated water are shown in the following table. When average water depth of the treatment site is greater than 10 feet, apply 60 to 80 pounds of Sonar SRP per treated surface acre.

Average Water Depth of Treatment Site (feet)	Pounds of Sonar SRP per Treated Surface Acre
1	4 - 8
2	8 - 16
3	12 - 24
4	16 - 32
5	20 - 40
6	24 - 48
7	28 - 56
8	32 - 64
9	36 - 72
10	40 - 80

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

Application Rate Calculation - Ponds, Lakes and Reservoirs

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

Pounds of Sonar SRP required per treated acre = Average water depth of treatment site x Desired ppm concentration of active ingredient equivalents x 54

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

$$5 \times 0.075 \times 54 = 20 \text{ pounds per treated surface acre.}$$

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

Application to Drainage Canals, Irrigation Canals and Rivers

In drainage canals, irrigation canals and rivers, Sonar SRP should be applied at the rate of 40 pounds per treated surface acre. Where water retention is possible, the performance of Sonar SRP will be enhanced by restricting water flow. In slow moving bodies of water, use an application pattern that will provide a uniform distribution and avoid concentration of the herbicide.

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