

Nufarm

AQUA-KLEEN*

GRANULAR

**A 2,4-D WEED KILLER
FOR CONTROLLING AQUATIC WEEDS**

RESTRICTED

REGISTRATION NO. 9907 PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING

GUARANTEE: 2,4-D equivalent.....19% by weight
(present as butoxyethanol ester) (isomer specific)



CAUTION

POISON

Nufarm Agriculture Inc. 5507 1st Street SE
Calgary, Alberta T2H 1H9

24 hours emergency Response Number 1-800-424-9300

NET WEIGHT: 22.7 Kg

GENERAL INFORMATION

For use in public bodies of water **AQUA KLEEN** should be applied by Federal, Provincial or local agency personnel trained in aquatic weed control or by licensed commercial applicators under contract to the above agencies. Refer to permit sections for additional information about private ponds and lakes.

AQUA-KLEEN Granular contains 19% by weight of 2,4-D, as the low-volatile butoxyethanol ester. This has been formulated on special heat treated attaclay granules that resist rapid decomposition in water. **AQUA-KLEEN** Granular sinks quickly to lake or pond bottoms and releases the weed killing chemical in the critical root zone area.

A water-oxygen ratio must be maintained because decaying weeds can use up oxygen that fish breathe. The most efficient use of **AQUA-KLEEN** Granular is early in the season when weed growth is sparse. During this period, weed decomposition is slow enough to not disturb the water-oxygen ratio, if the entire water body is treated at one time.

If treatments must be applied later in the season when the weed mass is dense, spread granules in lanes leaving buffer strips which can then be treated when vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment.

Insert B/w picture here

Buffer lanes should be 15 to 30 meters wide. Treated lanes should be as wide as the buffer strips.

PERMIT TO USE CHEMICALS IN WATER

Permits are required to control weeds by chemical means in public waters. If your lake or pond is private and completely land-locked (not connected at any time of the year to other bodies of water either by an actively flowing stream or by surface seepage) a permit may not be required. Contact your local Department of Environment Agriculture and/or Water Resources for a permit.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Do not store near fertilizer, seeds, insecticides or fungicides. Do not use in a greenhouse. Clean spreader equipment thoroughly before using it for any other purpose.

PROTECTIVE CLOTHING AND EQUIPMENT:

Handling the product (mixing and loading): Wear long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes and protective eye wear (face shield or safety glasses). Rinse gloves before removal.

Coveralls or a chemical-resistant apron should also be worn when open pouring from containers greater than 5L.

Handling the product (during application or repairing or cleaning equipment): Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Rinse gloves before removal.

Gloves are not required during application when applicator is in an enclosed tractor.

OPERATOR USE PRECAUTIONS:

- Wear freshly laundered clothing and clean protective equipment daily.
- Rinse gloves before removal.
- Wash hands before eating, drinking, using tobacco or using the toilet.
- If herbicide penetrates clothing remove immediately; then wash thoroughly and put on clean clothing. Throw away clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.
- After using this product, remove clothing and launder separately, and promptly and thoroughly wash hands and exposed skin with soap and water. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry.
- After work, remove all clothing and shower using soap and water.

FIRST AID:

If swallowed, call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

In case of skin or clothing contact, take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

In case of eye contact, hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

If inhaled, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you, when seeking medical attention

CAUTION

Unless otherwise authorised by the agency issuing the governing use permit, do not treat within 1.0 kilometer of any active water intake.

POTABLE WATERS

Do not use water from the treated area for consumption by humans or livestock for at least 60 days after treatment in confined waters, or for at least 21 days after treatment in open bodies of water, unless analysis indicates that 2,4-D residues do not exceed that listed in the Canadian Drinking Water Standards and Objectives.

IRRIGATION

Do not use water from the treated area for the preparation of agricultural spray mixtures or for irrigation of 2,4-D sensitive crops for at least 60 days after treatment in confined waters, or for at least 21 days after treatment in open bodies of water, unless an approved assay shows that the water suitable for such purposes. Many crops such as tomatoes, legumes, cucurbits, grapes and cole crops are sensitive to 2,4-D.

Do not use this product for purposes other than those recommended on this label.

TOXICOLOGICAL INFORMATION

No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient.

DISPOSAL:

Do not reuse this container for any purpose. Empty the container as completely as possible. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

DO NOT APPLY BY AIR.

DIRECTIONS

Restricted Uses

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NATURE OF RESTRICTION

This product is to be used only in the manner authorized. Consult local pesticide regulatory authorities about use permits which may be required.

RESTRICTED USES

WHERE TO APPLY

For use in ponds, lakes, reservoirs, marshes, drainage ditches, canals, rivers and streams that are quiescent or slow moving. Refer to permit sections for additional information about private ponds and rivers.

WHEN TO APPLY

For best results, spread **AQUA-KLEEN** Granular Herbicide in the spring or early summer, during the time weeds start to grow. If desired, this timing can be checked by sampling the lake bottom in areas heavily infested with weeds the year before. If treatments are delayed until weeds form a dense mat and reach the surface the higher rate, 225 Kg/ha, or two treatments at lower rates of 110 Kg/ha, should be made. Make the second treatment when heavy regrowth occurs or if weeds move in from untreated areas. This product is most effective in lakes and ponds with relatively slow rates of water exchange. The product may not be effective if applied in fast moving water such as a river or the mouth of a creek.

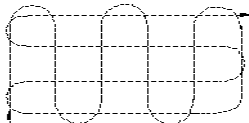
HOW TO APPLY

FOR LARGE AREAS: Use a fertilizer spreader or mechanical seeder such as the Gerber or Gandy. Before spreading any chemical, calibrate your equipment and your method of application to be sure of spreading the proper amount. When using boats and power equipment, you must determine the proper combination of (1) boat speed (2) rate of delivery from the spreader, and (3) width of swath covered by the granules.

Use the following formula to calibrate your spreader's delivery in kilograms of **AQUA-KLEEN** Granular per minute.

$$\frac{\text{Kilometers per hour} \times \text{spreader width (meters)} \times \text{kilograms per hectare}}{600} = \text{kilograms per minute}$$

FOR SMALL AREAS - around docks or isolated patches of weeds - use a portable spreader such as the Cyclone seeder. Estimate or measure out the area you want to treat. Weigh out the amount of material needed and spread this uniformly over the area. More uniform coverage is obtained by dividing the required amount in two and covering the area twice, applying the second half at right angles to the first.



When spreading **AQUA-KLEEN** from a boat, we suggest setting out guide posts at frequent intervals marking out the area. This helps to steer a straight course. Spot treatments can be made for small local infestations or for purposes of retreating areas missed in the first application or preventing the establishment of weed fragments drifting in from untreated areas.

AMOUNTS TO USE

Rates of application vary with resistance of weed species to the chemical, density of weed mass at time of treatment, water depth, and rate of water flow through the treated area. Use the higher rate for dense weeds, when water is more than 2.4 meters deep and where there is a large volume turnover.

AQUA-KLEEN

	<u>Kilograms per Hectare</u>	<u>Kilograms per 100 sq. meters</u>
SUSCEPTIBLE WEEDS		
Water Milfoil (<i>Myriophyllum spp.</i>)	110-225	1.25-2.5
Water Stargrass (<i>Heteranthera dubia</i>)	100	1.25
SLIGHTLY TO MODERATELY RESISTANT WEEDS	175-225	1.75-2.5
Bladderwort (<i>Utricularia spp.</i>)		
White water lily (<i>Nymphaea spp.</i>)		
Yellow water lily or spatterdock* (<i>Nuphar spp.</i>)		
Water shield (<i>Brasenia spp.</i>)		
Marine eelgrass (<i>Zostera marina</i>)		
Coontail* (<i>Ceratophyllum demersum</i>)		
*Repeat treatments may be needed		

This product is designed to control the weeds listed on the label. Control of other weeds may not be satisfactory. Generally weeds are difficult to control in lakes where water replacement comes from bottom springs.

WATER pH

Lake water that is extremely acid or alkaline may influence the effectiveness of **AQUA-KLEEN** Granular. A pH on the acid side (pH 6.0 or below) generally favors the action of the chemical while a pH on the alkaline side (pH 8.0 or above) may reduce the action. If regrowth occurs within a period of 6 to 8 weeks, a second application at the 100 kg ha. rate may be needed.

EELGRASS CONTROL IN MARITIME OYSTER FARMS

AQUA-KLEEN during the summer Marine eelgrass (*Zostera marina*) in Eastern Canadian Oyster farming areas. Application rates of 110 to 175 Kg. per surface hectare will kill weeds and thereby facilitate oyster harvesting. Make only one application.

Apply **AQUA-KLEEN** during the summer when eelgrass has begun to flower. For maximum weed control treat during warm weather when water exchange is at a minimum. Treat at low slack tide to reduce dilution by water movement. In very shallow areas treat at high stock water. Natural water movement will spread **AQUA-KLEEN** beyond the treated area. An additional perimeter of 500 meters around the actual treated area should be regarded as affected by **AQUA-KLEEN**. Treat at least 60 days before the first oyster harvest. Avoid harvesting other shell fish, such as clams, from the treated area and perimeter during the same 60 day period.

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