

CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

*Shark*TM

AQUATIC HERBICIDE

ACTIVE CONSTITUENT: 240 g/L CARFENTRAZONE-ETHYL
SOLVENT: 261 g/L LIQUID HYDROCARBON

GROUP G HERBICIDE

**For the control of Cabomba in aquatic situations
as per the Directions for Use Table.**

NET CONTENTS: 4 L, 20 L & 1000L



FMC Australasia Pty Ltd,
Unit 26, 8 Metroplex Ave
Murarrie Qld 4172
Contact Number 1800 066 355

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Spillage - In case of spillage, confine spilled product with material such as sand or clay. Dispose of waste as indicated below or according to the Australian Standard 2507 - Storage and Handling of Pesticides. DO NOT allow spilled product to enter sewers, drains, creeks or any other waterways. Keep out animals and unprotected persons. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution (ie organic solvent, detergent, bleach or caustic) and add the solution to the drums of wastes already collected. Label for contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities.

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

SAFETY DIRECTIONS

May irritate the nose and throat. May irritate the eyes and skin. Avoid contact with eyes and skin. Avoid inhaling vapour. When opening the container, mixing and loading and preparing spray and using product, wear cotton overalls buttoned to the neck and wrist, or equivalent clothing, and elbow-length PVC gloves. Wash hands after use. After each day's use wash gloves and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water.

MATERIAL SAFETY DATA SHEET (MSDS)

Additional information is listed in the Material Safety Data Sheet, which is available from the supplier.

WARRANTY

FMC makes no warranty expressed or implied, concerning the use of this product other than that indicated on the label. Except as so warranted the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

TRADEMARKS

Shark is a Registered Trademark of FMC Corporation, Philadelphia, USA

* Other trademarks

APVMA Approval No: 64095/47499

BATCH No:

DOM:

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DIRECTIONS FOR USE

Restrains

DO NOT apply to more than 50% in volume of the water body in a single application.

DO NOT apply to flowing water.

DO NOT allow overspray or spray drift to contact non-target plants.

DO NOT apply if heavy rains are expected to occur within 48 hours of application.

DO NOT apply subsequent treatments to the waterbody within 3 months.

DO NOT apply to water intended for human consumption.

DO NOT use treated water for irrigation for 3 months after the last application.

DO NOT use spraying equipment carried on the back of the user.

DO NOT apply using a low pressure handwand.

SPRAY DRIFT RESTRAINTS

DO NOT apply with droplets smaller than VERY COARSE or an EXTREMELY COARSE droplet size category as referenced to ASAE S572 or BCPC.

SITUATION	TARGET WEED	RATE	CRITICAL COMMENTS
Non flowing water bodies.	Cabomba <i>Cabomba caroliniana</i>	830 mL Shark per 100,000 L water [2 ppm (2 mg/L) Carfentrazone-ethyl]	To control cabomba, apply Shark Aquatic Herbicide onto the surface or below the surface of the water where cabomba is growing. The intention is to achieve a concentration of 2 ppm (2 mg/L) carfentrazone-ethyl in the water where cabomba is growing. This requires application of the product over/into the water where cabomba is growing. The application should be spread evenly over the Cabomba infestation regardless of the type of application used. DO NOT treat water where cabomba is not growing. DO NOT apply where desirable species are present. In areas where subsurface injection is not practical, ensure that low drift application methods and equipment is used. Apply by drip or hand held boom sprayer using a minimum of 50 L water. To minimise drift when applying Shark to the water surface use high flow, minimal drift nozzle/s. Use nozzles that are designed to produce spray droplets with VERY COARSE to EXTREMELY COARSE droplet sizes (>300µm). Use nozzle types such as: Air Induction, low-pressure fans, flooding flat fan nozzles and other nozzle types commonly used for 'flood' applications to soils are suited for treating cabomba. Always follow the nozzle manufacturer's recommendations for spray pressure, spacing and height above the water surface. DO NOT use an adjustable hand held spray nozzle. To avoid deoxygenation of the water DO NOT apply to more than 50% in volume of the water body in a single application. DO NOT apply subsequent applications to the waterbody within 3 months. NOTE: Algae and non-target plants may also be affected by this application. Very toxic to aquatic life. Other aquatic species may be susceptible to this product.

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

WITHHOLDING PERIODS: NOT REQUIRED WHEN USED AS DIRECTED

GENERAL INSTRUCTIONS

SHARK Aquatic Herbicide is a liquid formulation which is emulsifiable in water. It is designed to be mixed with water and applied to aquatic areas for control of floating and emerged weeds. Weed control is more effective on immature, actively growing weeds than on mature, less actively growing weeds. This product is a contact herbicide with little or no residual activity at recommended use rates.

This product is rapidly absorbed through the foliage of plants. Within a few hours following application, the foliage of susceptible weeds may show signs of desiccation, and in subsequent weeks, necrosis and death of the plant.

Extremes in environmental conditions (e.g. temperature, light and pH), may affect the activity of this product. Under warm conditions, herbicide symptoms may be accelerated.

Evidence suggests that dense infestations of cabomba may lead to lower levels of control. Furthermore, this product is a contact herbicide and usually requires re-treatment as some plants may escape herbicide contact. It is recommended that a repeat application be applied to achieve very high levels of control. However, DO NOT apply subsequent applications to the waterbody within 3 months.

Use of dirty or muddy water when preparing spray mixtures to apply this product may result in reduced herbicidal activity.

To Calculation the of rate of Shark Aquatic Herbicide to use

To calculate the amount of Shark Aquatic Herbicide to use, the following calculation can be used:

- Measure the length and breadth of the cabomba infested area to be treated in meters.
- Measure the maximum depth of the cabomba infested water in meters (take several measurements and use an average).
- Multiply the length by the breadth by the average maximum depth. This gives a volume in cubic meters.
- Multiple this figure by 0.004 (0.004 is a conversion factor that takes into account the slope of the sides of the waterbody as well as water volume).
- Multiply this figure by 830 mL
- The result is the amount of Shark Aquatic Herbicide (in mL) to be applied to the area where cabomba is growing.

$$\begin{array}{ccccccccc}
 \boxed{} & \times & \boxed{} & \times & \boxed{} & \times & \boxed{0.004} & \times & \boxed{830 \text{ mL}} & = & \boxed{} & \text{mL} \\
 \text{Length} & & \text{Breadth} & & \text{Ave Depth} & & \text{Conversion} & & \text{Rate} & & \text{Amount} \\
 & & & & & & \text{factor} & & & & \text{required}
 \end{array}$$

Example: An area of 30 m by 20 m with an average maximum depth of 1.2 m

$$\boxed{30} \times \boxed{20} \times \boxed{1.2} \times \boxed{0.004} \times \boxed{830 \text{ mL}} = \boxed{2390 \text{ mL}}$$

Fish

Most fish are not adversely affected by Shark Aquatic Herbicide, however treatment of dense weed areas may result in oxygen loss from decomposition of dead weeds. This loss of oxygen may cause fish suffocation. For this reason it is advised to only treat 50% of the volume of the water body. If de-oxygenation occurs, the water will need to be oxygenated by aerating the water or the introduction of fresh water to the treated water. If additional water is added, efficacy maybe adversely affected.

Therefore, treat small sections of the water body area at one time. Wait a minimum of 3 months before retreatment or treatment of another section of the water body. Do not exceed 830 mL per 100,000 L (2 ppm) in any single application.

SYMPTOMS

When applied to water, Shark is rapidly absorbed through the foliage of plants. Within a few days following application, the foliage of susceptible weeds shows signs of necrosis and later death.

RESISTANT WEEDS WARNING

GROUP G HERBICIDE

Shark Aquatic Herbicide is a member of the Aryl triazolinone group of herbicides. Its mode of action is through a process of membrane disruption, which is initiated by the inhibition of the enzyme protoporphyrinogen oxidase. This inhibition interferes with the chlorophyll biosynthetic pathway. For weed resistance management Shark is a Group G herbicide.

Some naturally occurring weed biotypes resistant to Shark and other herbicides that inhibit the enzyme protoporphyrinogen oxidase may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the population if the herbicides are used

repeatedly. These resistant weeds will not be controlled by Shark or other herbicides that inhibit the enzyme protoporphyrinogen oxidase. Since the occurrence of resistant weeds is difficult to detect prior to use, FMC Australasia Pty Ltd accepts no liability for any losses that may result from the failure of Shark Aquatic Herbicide or other herbicides that inhibit the enzyme protoporphyrinogen oxidase.

TIMING

Application should be made in the spring/summer period or when weeds are actively growing.

MIXING

Add half the required volume of water in spray tank and start agitation. Add the measured amount of Shark Aquatic Herbicide next. Add balance of water to tank. Mix in 50 L of water as a minimum. Maintain good agitation at all times until spraying is completed.

APPLICATION

Shark Aquatic Herbicide can be applied to water by sub-surface injection, boom spray application or [high pressure](#) hand held wand application with fixed low drift nozzles. Sub-surface injection is the preferred method of application. Use other methods when sub-surface injection is not practical.

For all types of applications, it is important to ensure that an even spread of the product is applied over the entire Cabomba infestation to reach the target concentration of 2 ppm within the treated area. Avoid high local concentrations that will occur if applied to a single area.

Apply in a minimum total spray volume of 50 L. Application using equipment set to produce [VERY COARSE to EXTREMELY COARSE](#) droplets will increase direct application onto the water surface and will minimise spray drift. Apply as low as possible above the water surface. Do not apply > 50 cm above the water surface.

Use nozzle types such as: Air Induction, low-pressure fans, flooding flat fan nozzles and other nozzle types commonly used for 'flood' applications to soils are suited for treating cabomba. DO NOT use an adjustable hand held spray nozzle as these produce large and fine droplets which can increase drift potential. Avoid spraying in still conditions, conditions conducive to inversion and in winds likely to cause drift.

Mandatory Instructions for Ground Applications

Use only nozzles that the manufacturer has rated to deliver a VERY COARSE or an EXTREMELY COARSE droplet size category as referenced to ASAE S572 or BCPC. Choose a nozzle specified to provide the droplet size category required in the label spray Drift Restraints. DO NOT use an adjustable hand held spray nozzles.

DO NOT use a higher spray system pressure than the maximum the manufacturer specifies for the selected nozzle to deliver the droplet size category required in the label Spray Drift Restraint.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

Do not apply under weather conditions, or from spray equipment, which may cause spray drift onto nearby susceptible plants, adjacent crops, or pastures, or onto wetlands, other waterbodies or watercourses.

PROTECTION OF WILDLIFE, FISH, CRUSTACEAN, AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate streams, rivers, wetlands or waterways with this product or used containers. Treated water may remain toxic for aquatic life for up to 14 days after application.

STORAGE, SPILLAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Spillage - In case of spillage, confine spilled product with material such as sand or clay. Dispose of waste as indicated below or according to the Australian Standard 2507 - Storage and Handling of Pesticides. DO NOT allow spilled product to enter sewers, drains, creeks or any other waterways. Keep out animals and unprotected persons. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution (ie organic solvent, detergent, bleach or caustic) and add the solution to the drums of wastes already collected. Label for

contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities.

Triple rinse containers before disposal. Add rinsings to spray tank. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. DO NOT burn empty containers or product.

Refillable containers: Empty contents fully into application equipment. Close all valves and return to point of supply for re-fill or storage.

SAFETY DIRECTIONS

May irritate the nose and throat. May irritate the eyes and skin. Avoid contact with eyes and skin. Avoid inhaling vapour. When opening the container, mixing and loading and preparing spray and using product, wear cotton overalls buttoned to the neck and wrist, or equivalent clothing, and elbow-length PVC gloves. Wash hands after use. After each day's use wash gloves and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water.

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