



DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER RESOURCES DIVISION

**AQUATIC PESTICIDES AND RELATED PRODUCTS
CURRENTLY APPROVED FOR USE IN WATERS OF THE STATE**

The following products are currently registered with the U.S. Environmental Protection Agency (USEPA) and the Michigan Department of Agriculture and Rural Development (DARD), and have been approved for use in the waters of the state by the Michigan Department Environmental Quality (DEQ). A permit may be required prior to treatment. Additional products may be approved in the future, pending registration with USEPA and MDARD and satisfactory review by DEQ.

BRAND NAME	REGISTRANT	Liquid or Granular	EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE ¹
<i>Reminder: You should confirm that the product you purchase is labeled for your application site.</i>				
<i>+ Indicates that product is in the process of being discontinued and supplies may be limited.</i>				
ALGAEICIDES				
CHELATED COPPER				
AIRMAX ALGAE DEFENSE	AIRMAX ECO-SYSTEMS INC	L	83742-1	0.7 gal/acre-foot, 1.7 gal/acre-foot (macroalgae only)
ALGI-CURE ALGAEICIDE	APPLIED BIOCHEMISTS INC	L	7364-09-8959	1.06 gal/acre-foot, 2.13 gal/acre-foot (macroalgae only)
ALGIMYCIN PWF	APPLIED BIOCHEMISTS INC	L	7364-09-8959	1.06 gal/acre-foot, 2.13 gal/acre-foot (macroalgae only)
CAPTAIN LIQUID COPPER ALGAEICIDE CAPTAIN XTR	SEPRO	L	67690-9	0.6 gal/acre-foot, 1.2 gal/acre-foot (macroalgae only)
CUTRINE-PLUS ALGAEICIDE/HERBICIDE	APPLIED BIOCHEMISTS INC	L	8959-10	0.6 gal/acre-foot, 1.2 gal/acre-foot (macroalgae only)
CUTRINE-PLUS GRANULAR ALGAEICIDE	APPLIED BIOCHEMISTS INC	G	8959-12	60 lbs/acre
CUTRINE ULTRA	APPLIED BIOCHEMISTS INC	L	8959-53	0.6 gal/acre-foot, 1.2 gal/acre-foot (macroalgae only)
FORMULA F-30 ALGAE CONTROL	DIVERSIFIED WATERSCAPES INC	L	27588-2	2.0 gal/acre-foot
K-TEA ALGAEICIDE	SEPRO	L	67690-24	0.7 gal/acre-foot, 1.7 gal/acre-foot (macroalgae only)
PHOENIX SYMMETRY ALGAEICIDE SYMMETRY NXG ALGAEICIDE	PHOENIX ENVIRONMENTAL CARE LLC	L	81943-2	0.7 gal/acre-foot, 1.7 gal/acre-foot (macroalgae only)
COPPER				
AQUATROLS RADIANCE ALGICIDE FOR LAKES AND PONDS	AQUATROLS	L	64962-1-83940	0.33 gal/acre-foot, 0.55 gal/acre-foot (macroalgae only)
COPPER SULFATE ²	VARIOUS	G	various	2.6 lbs/acre-foot, 4.4 lbs/acre-foot (macroalgae only)
EARTHTEC ALGICIDE/BACTERICIDE	EARTH SCIENCE LABORATORIES INC	L	64962-1	0.33 gal/acre-foot, 0.55 gal/acre-foot (macroalgae only)
ENDOTHALL, AMINE SALTS				
HYDROTHOL 191 AQUATIC ALGICIDE & HERBICIDE	UNITED PHOSPHORUS INC	L	70506-175	2.2 pints/acre-foot
HYDROTHOL 191 GRANULAR AQUATIC ALGICIDE & HERBICIDE ³	UNITED PHOSPHORUS INC	G	70506-174	11 lbs/acre-foot
HYDROGEN DIOXIDE (HYDROGEN PEROXIDE)				
GREENCLEAN BROAD SPECTRUM ALGAEICIDE/FUNGICIDE LIQUID	BIOSAFE SYSTEMS LLC	L	70299-2	1.2 - 30.0 gal/acre-foot (depending on algae type and density)

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SODIUM CARBONATE PEROXYHYDRATE				
GREENCLEAN GRANULAR ALGAECIDE	BIOSAFE SYSTEMS LLC	G	70299-4	17 lbs/acre-foot, 170 lbs/acre-foot (heavy algae growth)
GREENCLEAN PRO GRANULAR ALGAECIDE/FUNGICIDE	BIOSAFE SYSTEMS LLC	G	70299-6	9 lbs/acre-foot, 90 lbs/acre-foot (heavy algae growth)
PAK 27 ALGAECIDE	SOLVAY CHEMICALS INC	G	68660-9	16.9 lbs/acre-foot
PHYCOMYCIN SCP ALGAECIDE AND OXIDIZER	APPLIED BIOCHEMISTS INC	G	68660-9-8959	3 - 100 lbs/acre-foot
<u>HERBICIDES</u>				
2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)				
AQUACIDE PELLETS AQUATIC HERBICIDE ³	AQUACIDE COMPANY	G	5080-2	15-60 lbs/acre-foot (depending on treatment area and time of application)
NAVIGATE ³	APPLIED BIOCHEMISTS INC	G	228-378-8959	old (acre basis label): 100 lbs/acre (milfoil), 200 lbs/acre (coontail, lilies) new (acre-foot basis label): 28.4 - 56.8 lbs/acre-foot (milfoil), 21 lbs/acre (lilies)
SCULPIN G AQUATIC HERBICIDE	SEPRO	G	67690-49	16.3 - 65.4 lbs/acre-foot
2,4-DICHLOROPHENOXYACETIC ACID (2,4-D) AND TRICLOPYR				
RENOVATE MAX G3 AQUATIC HERBICIDE RENOVATE LZR MAX AQUATIC HERBICIDE	SEPRO	G	67690-50	4.7 - 93.7 lbs/acre-foot
CHELATED COPPER				
COPPER EDA AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	L	8959-54	3.3 gal/acre-foot
PHOENIX CURRENT AQUATIC HERBICIDE	PHOENIX ENVIRONMENTAL CARE LLC	L	81943-1	3.3 gal/acre-foot
HARPOON AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	L	8959-54	3.3 gal/acre-foot
HARPOON GRANULAR AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	G	8959-55	40-80 lbs/acre-foot of plant height
KOMEEN AQUATIC HERBICIDE	SEPRO	L	67690-25	3.34 gal/acre-foot
NAUTIQUE AQUATIC HERBICIDE	SEPRO	L	67690-10	3.0 gal/acre-foot
AIRMAX PONDWEED DEFENSE	AIRMAX ECO-SYSTEMS INC	L	83742-2	3.3 gal/acre-foot
DIQUAT DIBROMIDE⁴				
DIQUASH LANDSCAPE AND AQUATIC HERBICIDE	SHARDA USA LLC	L	83529-12	2 gal/acre
HARVESTER LANDSCAPE AND AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	L	100-1091-8959	2 gal/acre
HELM DIQUAT AQUATIC AND LANDSCAPE HERBICIDE	HELM AGRO US INC	L	74530-25	2 gal/acre
KNOCKOUT	SYNGENTA CROP PROTECTION INC	L	100-1091	2 gal/acre
LITTORA AQUATIC HERBICIDE	SEPRO	L	100-1091-67690 67690-53	2 gal/acre
NUFARM DIQUAT SPC 2L LANDSCAPE AND AQUATIC HERBICIDE NUFARM DIQUAT 2L HERBICIDE	NUFARM AMERICAS INC	L	228-675	2 gal/acre
PHOENIX REDWING LANDSCAPE AND AQUATIC HERBICIDE	PHOENIX ENVIRONMENTAL CARE LLC	L	81943-23	2 gal/acre
REWARD LANDSCAPE AND AQUATIC HERBICIDE	SYNGENTA CROP PROTECTION INC	L	100-1091	2 gal/acre
SOLERA DIQUAT LANDSCAPE AND AQUATIC HERBICIDE	SOLERA ATO LLC	L	82542-14-84237	2 gal/acre
TRIBUNE HERBICIDE	SYNGENTA CROP PROTECTION INC	L	100-1390	2 gal/acre
TSUNAMI DQ LANDSCAPE AND AQUATIC HERBICIDE	SANCO INDUSTRIES	L	83190-3-72838	2 gal/acre
WEEDPLEX PRO LANDSCAPE AND AQUATIC HERBICIDE	SANCO INDUSTRIES	L	100-1091-72838	2 gal/acre
WEEDTRINE -D- AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	L	8959-9	10 gal/acre

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ENDOTHALL, AMINE/DIPOTASSIUM SALTS				
AQUATHOL K AQUATIC HERBICIDE	UNITED PHOSPHORUS INC	L	70506-176	1.9 gal/acre-foot
AQUATHOL SUPER K GRANULAR AQUATIC HERBICIDE ³	UNITED PHOSPHORUS INC	G	70506-191	13.2 lbs/acre-foot
HYDROTHOL 191 AQUATIC ALGICIDE & HERBICIDE	UNITED PHOSPHORUS INC	L	70506-175	1 gal/acre
HYDROTHOL 191 GRANULAR AQUATIC ALGICIDE & HERBICIDE ³	UNITED PHOSPHORUS INC	G	70506-174	dependent on target species (see product label) and DEQ approval
FLUMIOXAZIN				
CLIPPER HERBICIDE	VALENT USA CORPORATION	G	59639-161	0.53 - 2.1 lbs/acre-foot (submergent) 6.0 - 12.0 ounces/acre-foot (emergent)
FLURIDONE⁵				
AVAST! SC AQUATIC HERBICIDE	SEPRO	L	67690-30	6 parts per billion
RESTORE S.M.A.R.T. AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	L	8959-57	6 parts per billion
SONAR A.S. AQUATIC HERBICIDE	SEPRO	L	67690-4	6 parts per billion
SONAR GENESIS	SEPRO	L	67690-54	6 parts per billion
SONAR PR PRECISION RELEASE	SEPRO	G	67690-12	6 parts per billion
SONAR Q AQUATIC HERBICIDE	SEPRO	G	67690-3	6 parts per billion
SONAR SRP AQUATIC HERBICIDE	SEPRO	G	67690-3	6 parts per billion
SONAR RTU AQUATIC WEED HERBICIDE FOR PONDS	SEPRO	L	67690-48	6 parts per billion
SONARONE AQUATIC HERBICIDE	SEPRO	G	67690-45	6 parts per billion
WHITECAP SC AQUATIC HERBICIDE	TESSENDERLO KERLEY	L	61842-11	6 parts per billion
GLYPHOSATE				
ACCORD CONCENTRATE	DOW AGROSCIENCES LLC	L	62719-324	6.0 pints/acre
AQUAMASTER HERBICIDE	MONSANTO CO	L	524-343	6.0 pints/acre
AQUAPRO HERBICIDE	SEPRO	L	62719-324-67690	6.0 pints/acre
AQUA STAR	ALBAUGH, INC	L	42750-59	6.0 pints/acre
PHOENIX AVOCET AQUATIC HERBICIDE	PHOENIX ENVIRONMENTAL CARE LLC	L	81943-5	6.0 pints/acre
GLYFOS AQUATIC HERBICIDE	CHEMINOVA A/S	L	4787-34	6.0 pints/acre
REFUGE HERBICIDE	SYNGENTA CROP PROTECTION LLC	L	100-1362	6.0 pints/acre
RIVERDALE AQUA NEAT AQUATIC HERBICIDE	NUFARM AMERICAS INC	L	228-365	6.0 pints/acre
AQUA NEAT AQUATIC HERBICIDE	NUFARM AMERICAS INC	L	228-365	6.0 pints/acre
RODEO	DOW AGROSCIENCES LLC	L	62719-324	6.0 pints/acre
SHORE-KLEAR AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	L	228-365-8959	6.0 pints/acre
GLYPHOSATE PLUS SURFACTANT				
GLYPHOMATE 41 WEED AND GRASS KILLER PLUS AQUATIC HERBICIDE	PBI/GORDON CORPORATION	L	2217-847	dependent on target species (see product label) and DEQ approval
SHOREKLEAR-PLUS AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	L	228-367-8959	2.6 gal/acre broadcast, 2.75% spot treatment
IMAZAMOX				
CLEARCAST	BASF CORPORATION SEPRO	L	241-437 241-437-67690	2 qts/acre (foliar broadcast), 173 oz/acre-foot (submerged), up to 5% by volume (foliar spot treatment)

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IMAZAPYR				
AQUAPIER AQUATIC HERBICIDE	SEPRO	L	74477-6-67690	dependent on target species (see product label) and DEQ approval
PHOENIX GULLWING AQUATIC HERBICIDE	PHOENIX ENVIRONMENTAL CARE LLC	L	81943-17	dependent on target species (see product label) and DEQ approval
HABITAT HERBICIDE	BASF CORPORATION SEPRO	L	241-426 241-426-67690	dependent on target species (see product label) and DEQ approval
NUFARM POLARIS AC COMPLETE HERBICIDE	NUFARM AMERICAS INC	L	228-570	dependent on target species (see product label) and DEQ approval
NUFARM POLARIS HERBICIDE	NUFARM AMERICAS INC	L	228-534	dependent on target species (see product label) and DEQ approval
PENOXULAM⁵				
GALLEON SC AQUATIC HERBICIDE	SEPRO	L	67690-47	consult with DEQ and SEPRO
TRICLOPYR				
NAVITROL DPF AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	G	228-597-8959	67 lbs/acre-foot
NAVITROL LANDSCAPE AND AQUATIC HERBICIDE	APPLIED BIOCHEMISTS INC	L	8959-56	2.3 gal/acre-foot
RENOVATE 3 AQUATIC HERBICIDE	SEPRO	L	62719-37-67690	2.3 gal/acre-foot
RENOVATE OTF RENOVATE LZR	SEPRO	G	67690-42	67 lbs/acre-foot
<u>SWIMMER'S ITCH</u>				
COPPER SULFATE				
COPPER SULFATE CRYSTALS ⁶	CHEM ONE LTD	G	56576-1	2 lbs/100 sq. foot
<u>OTHER</u>				
ADJUVANTS, SINK/DRIFT CONTROL				
AGRI-DEX	HELENA CHEMICAL COMPANY	L	N/A	4.0 pints/acre
CYGNET PLUS	BREWER INTERNATIONAL	L	N/A	2.5 pints/acre-foot
POLYAN	BREWER INTERNATIONAL	L	N/A	1.0 gal/acre-foot
TOPFILM	BIOSORB INC	L	N/A	1.0 pint/acre
SHADE PRODUCTS (DYES)				
DYE PRODUCTS LABELED AS HERBICIDES⁷				
ADMIRAL LIQUID	BECKER UNDERWOOD	L	67064-2	0.25 gal/acre-foot
ADMIRAL WSP	BECKER UNDERWOOD	G	67064-1	0.25 gal/acre-foot
AQUASHADE AQUATIC PLANT GROWTH CONTROL	APPLIED BIOCHEMISTS	L	33068-1	0.25 gal/acre-foot
DYE PRODUCTS NOT LABELED AS HERBICIDES (MANY)				
EXAMPLE: CYGNET SELECT	CYGNET ENTERPRISES	L	N/A	0.25 gal/acre-foot
FORMULA F-40	DIVERSIFIED WATERSCAPES INC	L	N/A	0.25 gal/acre-foot

¹ Maximum rate generally approved by the DEQ. Actual rate required for control may depend on the target species and other site-specific conditions. Refer to product label.

² Various copper sulfate products registered with the DARD (517-373-9750) may be used.

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³ Granular endothall and granular 2,4-D products may not be applied within 75 feet of any well OR within 250 feet of wells less than 30 feet deep. Isolation distances are measured from the well location, not the shoreline.				
⁴ Diquat dibromide products are on Michigan DARD's restricted use pesticide list. You must be a certified applicator to purchase and use these products in waters of the state, except for small ponds that have no outflow and are under the control of the user.				
⁵ Fluridone and penoxsulam use may be subject to Lake Management Plan and/or Evaluation protocols. Contact DEQ for current guidelines.				
⁶ The medium granular size should be used.				
⁷ Only dyes that are labeled as herbicides must be registered with the USEPA and DARD. Dye product labels which claim herbicidal properties cannot be used in waterbodies where there is an outflow.				