



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Water Resources Division
Aquatic Nuisance Control Program

**Aquatic Pesticides and Related Products
Approved for Use in Waters of the State of Michigan**

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

Reminder: Confirm that the product you purchase is labeled for your application site.

+ Indicates the product is in the process of being discontinued and supplies may be limited.

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CATEGORY: ALGAECIDES

Chemical: CHELATED COPPER

Table 1: Approved Brands of Chelated Copper

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE¹
AirMax Algae Defense	AirMax EcoSystems Inc	83742-1	0.7 gal/acre-foot, 1.7 gal/acre-foot (macroalgae only)
Algi-Cure Algaecide	Applied Biochemists Inc	7364-9-8959	1.06 gal/acre-foot, 2.13 gal/acre-foot (macroalgae only)
Algimycin PWF Algaecide/Cyanobactericide	Applied Biochemists Inc SePRO	7364-9-8959 67690-91	1.06 gal/acre-foot, 2.13 gal/acre-foot (macroalgae only)
Alligare 8% Copper	Alligare LLC	81927-52	0.7 gal/acre-foot, 1.7 gal/acre-foot (macroalgae only)
Alligare Argos	Alligare LLC	81927-53	0.6 gal/acre-foot, 1.2 gal/acre-foot (macroalgae only)
Captain Liquid Copper Algaecide Captain XTR	SePRO	67690-9	0.6 gal/acre-foot, 1.2 gal/acre-foot (macroalgae only)
Cutrine-Plus Algaecide/Herbicide	Applied Biochemists Inc SePRO	8959-10 67690-93	0.6 gal/acre-foot, 1.2 gal/acre-foot (macroalgae only)
Cutrine-Plus Granular Algaecide	Applied Biochemists Inc SePRO	8959-12 67690-94	60 lbs/acre
Cutrine Ultra	Applied Biochemists Inc SePRO	8959-53 67690-98	0.6 gal/acre-foot, 1.2 gal/acre-foot (macroalgae only)
K-Tea Algaecide	SePRO	67690-24	0.7 gal/acre-foot, 1.7 gal/acre-foot (macroalgae only)
Symmetry NXG	United Phosphorus Inc	70506-249	0.7 gal/acre-foot, 1.7 gal/acre-foot (macroalgae only)

CATEGORY: ALGAECIDES

Chemical: COPPER

Table 2: Approved Brands of Copper

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Copper Sulfate ²	Various	various	2.6 lbs/acre-foot, 4.4 lbs/acre-foot (macroalgae only)
Earthtec Algicide/Bactericide	Earth Science Laboratories Inc	64962-1	0.33 gal/acre-foot, 0.55 gal/acre-foot (macroalgae only)
Lake-Life	Life Science Group Inc	88930-1	0.33 - 5.5 gal/acre-foot
SeClear Algaecide and Water Quality Enhancer	SePRO	67690-55	1.0 - 6.4 gal/acre-foot
SeClear G Algaecide and Water Quality Enhancer	SePRO	67690-72	1.8 - 18.0 lbs/acre-foot

Chemical: ENDOTHALL, AMINE SALTS

Table 3: Approved Brands of Endothall, Amine Salts

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Hydrothol 191 Aquatic Algicide & Herbicide	United Phosphorus Inc	70506-175	2.2 pints/acre-foot
Hydrothol Granular Aquatic Algicide & Herbicide ³	United Phosphorus Inc	70506-174	11 lbs/acre-foot

CATEGORY: ALGAECIDES

Chemical: SODIUM CARBONATE PEROXYHYDRATE

Table 4: Approved Brands of Sodium Carbonate Peroxyhydrate

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
GreenClean Granular Algaecide	BioSafe Systems LLC	70299-4	17 lbs/acre-foot, 170 lbs/acre-foot (heavy algae growth)
GreenClean PRO	BioSafe Systems LLC	70299-15	10 lbs/acre-foot, 100 lbs/acre-foot (heavy algae growth)
PAK 27 Algaecide	SePRO	68660-9-67690	3.0 - 100 lbs/acre-foot
Phycomycin SCP Algaecide and Oxidizer	Applied Biochemists Inc SePRO	8959-60 67690-105	3.0 - 100 lbs/acre-foot

CATEGORY: HERBICIDES

Chemical: 2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)

Table 5: Approved Brands of 2,4-Dichlorophenoxyacetic Acid (2,4-D)

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Aquacide Pellets Aquatic Herbicide ³	Aquacide Company	5080-2	15-60 lbs/acre-foot (depending on treatment area and time of application)
Navigate	Applied Biochemists Inc SePRO	228-378-8959 228-378-67690	28.4 - 56.8 lbs/acre-foot (milfoil), 21 lbs/acre (lilies)
Sculpin G Aquatic Herbicide	SePRO	67690-49	16.3 - 65.4 lbs/acre-foot

Chemical: 2,4-DICHLOROPHENOXYACETIC ACID (2,4-D) AND TRICLOPYR

Table 6: Approved Brands of 2,4- Dichlorophenoxyacetic Acid (2,4-D) AND Triclopyr

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Renovate MAX G Aquatic Herbicide	SePRO	67690-50	4.7 - 93.7 lbs/acre-foot

CATEGORY: HERBICIDES

Chemical: CARFENTRAZONE

Table 7: Approved Brands of Carfentrazone

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Stingray Aquatic Herbicide	SePRO	279-3279-67690	0.143 gal/acre-foot

Chemical: CHELATED COPPER

Table 8: Approved Brands of Chelated Copper

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Copper EDA Aquatic Herbicide	Applied Biochemists Inc	8959-54	3.3 gal/acre-foot
Current	United Phosphorus Inc	70506-248	3.3 gal/acre-foot
Harpoon Aquatic Herbicide	Applied Biochemists Inc SePRO	8959-54 67690-99	3.3 gal/acre-foot
Harpoon Granular Aquatic Herbicide	Applied Biochemists Inc SePRO	8959-55 67690-100	40-80 lbs/acre-foot of plant height
Komeen Aquatic Herbicide	SePRO	67690-25	3.34 gal/acre-foot
Komeen Crystal	SePRO	67690-60	7.7 - 15.5 lbs/acre-foot
Nautique Aquatic Herbicide	SePRO	67690-10	3.0 gal/acre-foot

Chemical: DIQUAT DIBROMIDE

Table 9: Approved Brands of Diquat Dibromide

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Alligare Diquat Herbicide	Alligare LLC	81927-35	2 gal/acre
Dessicash L&A Landscape and Aquatic Herbicide	Sharda USA LLC	83529-12	2 gal/acre
Harvester Landscape and Aquatic Herbicide	Applied Biochemists Inc SePRO	100-1091-8959 67690-53	2 gal/acre
Littora Aquatic Herbicide	SePRO	67690-53	2 gal/acre
Nufarm Diquat SPC 2L Landscape and Aquatic Herbicide Nufarm Diquat 2L Herbicide	Nufarm Americas Inc	228-675	2 gal/acre
Reward Landscape and Aquatic Herbicide	Syngenta Crop Protection Inc	100-1091	2 gal/acre
Solera Diquat Landscape and Aquatic Herbicide	Solera ATO LLC	82542-14-84237	2 gal/acre
Tribune Herbicide	Syngenta Crop Protection Inc	100-1390	2 gal/acre
Tsunami DQ Landscape and Aquatic Herbicide	Sanco Industries	83190-3-72838	2 gal/acre
Ultra Pondweed Defense	AirMax EcoSystems	82542-14-83742	2 gal/acre
Weedtrine -D Aquatic Herbicide	Applied Biochemists Inc SePRO	8959-9 67690-92	10 gal/acre

CATEGORY: HERBICIDES

Chemical: ENDOTHALL, AMINE/DIPOTASSIUM SALTS

Table 10: Approved Brands of Endothall, Amine/Dipotassium Salts

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Aquathol K Aquatic Herbicide	United Phosphorus Inc	70506-176	1.9 gal/acre-foot
Aquathol Super K Granular Aquatic Herbicide ³	United Phosphorus Inc	70506-191	13.2 lbs/acre-foot
Hydrothol 191 Aquatic Algicide & Herbicide	United Phosphorus Inc	70506-175	1 gal/acre
Hydrothol Granular Aquatic Algicide & Herbicide ³	United Phosphorus Inc	70506-174	dependent on target species (see product label) and EGLE approval

Chemical: ENDOTHALL, DIPOTASSIUM SALT AND DIQUAT DIBROMIDE

Table 11: Approved Brands of Endothall, Dipotassium Salt and Diquat Dibromide

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
AquaStrike	United Phosphorus Inc	70506-302	0.875 - 1.625 gal/acre-foot

Chemical: FLORPYRAUXIFEN-BENZYL

Table 12: Approved Brands of Florpyrauxifen-benzyl

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
ProcellaCOR EC	SePRO	67690-80	79.25 ounces/acre-foot (see product label)

CATEGORY: HERBICIDES

Chemical: FLUMIOXAZIN

Table 13: Approved Brands of Flumioxazin

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Alligare Flumigard Herbicide	Alligare LLC	81927-68	0.53 - 1.1 lbs/acre-foot (submergent) 6.0 - 12.0 ounces/acre (floating/emergent)
Alligare Flumigard SC Herbicide	Alligare LLC	81927-78	1.1 pints/acre-foot (submergent) 6-12 ounces/acre (floating/emergent)
Clipper Herbicide	Valent USA Corporation	59639-161	0.53 - 1.1 lbs/acre-foot (submergent) 6.0 - 12.0 ounces/acre (floating/emergent)
Propeller	Alligare LLC	81927-68	0.53 - 1.1 lbs/acre-foot (submergent) 6.0 - 12.0 ounces/acre (floating/emergent)
Schooner 51% WDG Herbicide	Atticus LLC	91234-129	0.53 - 1.1 lbs/acre-foot (submergent) 6.0 - 12.0 ounces/acre (floating/emergent)
Schooner SC	Atticus LLC	91234-204	1.1 pints/acre-foot (submergent) 6-12 ounces/acre (floating/emergent)
Semera 51% WDG Herbicide	Atticus LLC	91234-129	0.53 - 1.1 lbs/acre-foot (submergent) 6.0 - 12.0 ounces/acre (floating/emergent)
Semera SC	Atticus LLC	91234-204	1.1 pints/acre-foot (submergent) 6-12 ounces/acre (floating/emergent)

CATEGORY: HERBICIDES

Chemical: FLURIDONE⁴

Table 14: Approved Brands of Fluridone

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Avast! SC Aquatic Herbicide	SePRO	67690-30	6 parts per billion
Sonar A.S. Aquatic Herbicide	SePRO	67690-4	6 parts per billion
Sonar Genesis	SePRO	67690-54	6 parts per billion
Sonar PR Precision Release	SePRO	67690-12	6 parts per billion
Sonar Q Aquatic Herbicide	SePRO	67690-3	6 parts per billion
Sonar SRP Aquatic Herbicide	SePRO	67690-3	6 parts per billion
Sonar RTU Aquatic Weed Herbicide for Ponds	SePRO	67690-48	6 parts per billion
SonarOne Aquatic Herbicide	SePRO	67690-45	6 parts per billion

CATEGORY: HERBICIDES

Chemical: GLYPHOSATE

Table 15: Approved Brands of Glyphosate

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Alligare Glyphosate 5.4	Alligare LLC	81927-8	6.0 pints/acre
AquaNeat Aquatic Herbicide	Nufarm Americas Inc	228-365	6.0 pints/acre
Roundup Custom for Aquatic & Terrestrial Use	Monsanto Co	524-343	6.0 pints/acre
AquaPro Herbicide	SePRO	62719-324-67690	6.0 pints/acre
Aqua Star	Albaugh Inc	42750-59	6.0 pints/acre
Rodeo	Dow Agrosiences LLC	62719-324	6.0 pints/acre
Shore-Klear Aquatic Herbicide	Applied Biochemists Inc	228-365-8959	6.0 pints/acre
Shoreline Defense	AirMax EcoSystems Inc	42750-59-83742	6.0 pints/acre

CATEGORY: HERBICIDES

Chemical: GLYPHOSATE PLUS SURFACTANT

Table 16: Approved Brands of Glyphosate Plus Surfactant

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Glyphomate 41 Weed and Grass Killer Plus Aquatic Herbicide	PBI/Gordon Corporation	2217-847	dependent on target species (see product label) and EGLE approval
ShoreKlear-Plus Aquatic Herbicide	Applied Biochemists Inc	228-367-8959	2.6 gal/acre broadcast, 2.75% spot treatment

Chemical: IMAZAMOX

Table 17: Approved Brands of Imazamox

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Castaway	Atticus, LLC	91234-90	128 oz/acre (foliar broadcast), 173 oz/acre-foot (submerged), up to 5% by volume (foliar spot treatment)
Clearcast	BASF Corporation SePRO	241-437 241-437-67690	128 oz/acre (foliar broadcast), 173 oz/acre-foot (submerged), up to 5% by volume (foliar spot treatment)
Top Deck	UPL NA Inc	70506-355	128 oz/acre (foliar broadcast), 173 oz/acre-foot (submerged), up to 5% by volume (foliar spot treatment)

CATEGORY: HERBICIDES

Chemical: IMAZAPYR

Table 18: Approved Brands of Imazapyr

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Alligare Ecomazapyr 2 SL	Alligare LLC	81927-22	dependent on target species (see product label) and EGLE approval
Alligare Imazapyr 4 SL	Alligare LLC	81927-24	dependent on target species (see product label) and EGLE approval
Arsenal Herbicide	BASF Corporation	241-346	dependent on target species (see product label) and EGLE approval
Habitat Herbicide	BASF Corporation SePRO	241-426 241-426-67690	dependent on target species (see product label) and EGLE approval
Nufarm Polaris AC Complete Herbicide	Nufarm Americas Inc	228-570	dependent on target species (see product label) and EGLE approval
Nufarm Polaris Herbicide	Nufarm Americas Inc	228-534	dependent on target species (see product label) and EGLE approval

Chemical: PENOX SULAM⁴

Table 19: Approved Brands of Penoxsulam

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Galleon SC Aquatic Herbicide	SePRO	67690-47	consult with EGLE and SePRO

CATEGORY: HERBICIDES

Chemical: TRICLOPYR

Table 20: Approved Brands of Triclopyr

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Garlon 3A	Dow Agrisciences Corteva Agriscience	62719-37	8 quarts/acre (woody species only)
Navitrol DPF Aquatic Herbicide	Applied Biochemists Inc	228-597-8959	67 lbs/acre-foot
Navitrol Landscape and Aquatic Herbicide	Applied Biochemists Inc	8959-56	2.3 gal/acre-foot
Renovate 3 Aquatic Herbicide	SePRO	62719-37-67690	2.3 gal/acre-foot
Renovate OTF	SePRO	67690-42	67 lbs/acre-foot

CATEGORY: OTHER

Chemicals: ADJUVANTS, SINK/DRIFT CONTROL

Table 21: Approved Brands of Adjuvants and Sink/Drift Control

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Agri-Dex	Helena Chemical Company	N/A	4.0 pints/acre
AMP Activator	SePRO	N/A	0.5 gal/acre-foot
AquaSticker	Naturalake Biosciences	N/A	1 - 20 lbs/acre
Cygnat Plus	Brewer International	N/A	2.5 pints/acre-foot up to 6 feet depth (1-2 gal/acre)
Polyan	Brewer International	N/A	1.0 gal/acre-foot
TopFilm	Biosorb Inc	N/A	1.0 pint/acre

Chemicals: SHADE PRODUCTS

Table 22: Approved Brands of Shade Products

BRAND NAME	REGISTRANT	U.S. EPA REGISTRATION NUMBERS	MAXIMUM APPLICATION RATE
Dye Products Labeled as Herbicides⁵			
Admiral Liquid	BASF	67064-2	0.25 gal/acre-foot
Admiral WSP	BASF	67064-1	0.25 gal/acre-foot
Aquashade Aquatic Plant Growth Control	Applied Biochemists SePRO	33068-1 33068-1	0.25 gal/acre-foot
Dye Products Not Labeled as Herbicides (Many)			
Example: Cygnet Select	Cygnet Enterprises	N/A	0.25 gal/acre-foot
Formula F-40	Diversified Waterscapes Inc	N/A	0.25 gal/acre-foot

¹ Maximum rate generally approved by EGLE. 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 MDARD (517-373-9750) may be used.

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 Fluridone and penoxsulam use may be subject to Lake Management Plan and/or Evaluation protocols. Contact EGLE for current guidelines.

⁵ Only dyes that are labeled as herbicides must be registered with the U.S. EPA and MDARD. Dye product labels which claim herbicidal properties cannot be used in waterbodies where there is an outflow.