



Water Resources Division
Aquatic Nuisance Control Program

**Chemicals Approved for Use
Under the Aquatic Nuisance Control Standard Permit**

The following list of chemicals is approved for use under Aquatic Nuisance Control (ANC) Standard Permit. Each standard permit and approved treatment map(s) specifies the conditions of chemical treatment for a given waterbody. To be eligible for a Standard Permit, the waterbody and permit application must meet the criteria specified by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Additional products may be approved in the future, pending registration with the U.S. Environmental Protection Agency and the Michigan Department of Agriculture and Rural Development and satisfactory review by EGLE.

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CATEGORY: ALGAE CONTROL

Table 1: Chemicals Approved for Algae Control Under the ANC Standard Permit

ACTIVE INGREDIENT	BRAND NAME AND MAXIMUM APPLICATION RATE
chelated copper	Airmax Algae Defense, Alligare 8% Copper, K-Tea, Symmetry NXG: <ul style="list-style-type: none"> • 0.7 gal/acre-foot (planktonic/filamentous algae) • 1.7 gal/acre-foot (macroalgae) Algi-Cure, Algimycin PWF: <ul style="list-style-type: none"> • 1.06 gal/acre-foot (planktonic/filamentous algae) • 2.13 gal/acre-foot (macroalgae) Alligare Argos, Captain, Captain XTR, Cutrine-Plus: <ul style="list-style-type: none"> • 0.6 gal/acre-foot (planktonic/filamentous algae) • 1.2 gal/acre-foot (macroalgae) Cutrine Plus Granular: 60.0 lbs/acre
chelated copper (with surfactant)	Cutrine Ultra: <ul style="list-style-type: none"> • 0.6 gal/acre-foot (planktonic/filamentous algae) • 1.2 gal/acre-foot (macroalgae)
copper sulfate	All approved products (unless specified below): <ul style="list-style-type: none"> • 2.6 lbs/acre-foot (planktonic/filamentous algae) • 4.4 lbs/acre-foot (macroalgae) EarthTec: <ul style="list-style-type: none"> • 0.33 gal/acre-foot (planktonic algae) • 0.55 gal/acre-foot (filamentous algae/macroalgae) Lake-Life: 0.33 – 5.5 gal/acre foot SeClear: 6.4 gal/acre foot SeClear G: 18 lbs/acre-foot
endothall	Hydrothol 191: 2.2 pints/acre-foot Hydrothol Granular: 11.0 lbs/acre-foot
sodium carbonate peroxyhydrate	GreenClean Granular: <ul style="list-style-type: none"> • 17.0 lbs/acre-foot (maintenance) • 170.0 lbs/acre-foot (heavy growth) GreenClean PRO: <ul style="list-style-type: none"> • 10.0 lbs/acre-foot (maintenance) • 100.0 lbs/acre-foot (heavy growth) PAK 27, Phycomycin SCP Algaecide and Oxidizer: <ul style="list-style-type: none"> • 100.0 lbs/acre-foot

CATEGORY: SUBMERGED PLANT CONTROL**Table 2: Chemicals Approved for Submerged Plant Control Under the ANC Standard Permit**

ACTIVE INGREDIENT	BRAND NAME AND MAXIMUM APPLICATION RATE
2,4-D – granular	Aquacide: 22.0 lbs/acre Navigate: 21.0 lbs/acre Sculpin G: 65.4 lbs/acre-foot
2,4-D and triclopyr	Renovate Max G: 93.7 lbs/acre-foot
carfentrazone	Stingray ^{1,2} : 0.143 gal/acre-foot
Chelated copper	Copper-EDA, Current, Harpoon, Komeen: 3.3 gal/acre-foot Nautique ¹ : 3.0 gal/acre-foot Harpoon Granular: 40 - 80 lbs/acre-foot of plant height Komeen Crystal: 7.7 – 15.5 lbs/acre-foot
diquat dibromide	Alligare Diquat ¹ , Dessicash ¹ , Harvester ¹ , Littora ¹ , Nufarm Diquat ¹ , Reward ¹ , Solera ¹ , Tribune ¹ , Tsunami ¹ , Ultra Pondweed Defense ¹ : 2.0 gal/acre Weedtrine D ¹ : 10.0 gal/acre
endothall	Aquathol K: 1.9 gal/acre-foot Aquathol Super K Granular: 13.2 lbs/acre-foot Hydrothol 191: 1.0 gal/acre Hydrothol Granular: 162.0 lbs/acre-foot
endothall and diquat dibromide	AquaStrike: 0.875 - 1.625 gal/acre-foot
florpyrauxifen-benzyl	ProcellaCOR EC: 3.17 - 79.25 oz/acre-foot (see product label)
flumioxazin	Alligare Flumigard, Clipper, Propeller, Schooner, Semera: 1.1 lbs/acre-foot Alligare Flumigard SC, Schooner SC, Semera SC: 1.1 pints/acre-foot
imazamox	Castaway ¹ , Clearcast ¹ , Top Deck ¹ : 173 oz/acre
triclopyr	Navitrol ¹ , Renovate 3 ¹ : 2.3 gal/acre-foot Navitrol DPF, Renovate OTF: 67.0 lbs/acre-foot

CATEGORY: FLOATING/EMERGENT PLANT CONTROL**Table 3: Chemicals Approved for Floating/Emergent Plant Control Under the ANC Standard Permit**

ACTIVE INGREDIENT	BRAND NAME AND MAXIMUM APPLICATION RATE
2,4-D – granular	Aquacide: 22.0 lbs/acre Navigate: 21.0 lbs/acre Sculpin G: 65.4 lbs/acre-foot
2,4-D and triclopyr	Renovate Max G: 93.7 lbs/acre-foot
carfentrazone	Stingray ^{1, 2} : contact SePRO or EGLE for recommended target species application rates
diquat dibromide	Alligare Diquat ¹ , Dessicash ¹ , Harvester ¹ , Littora ¹ , Nufarm Diquat ¹ , Reward ¹ , Solera ¹ , Tribune ¹ , Tsunami ¹ , Ultra Pondweed Defense ¹ : 2.0 gal/acre Weedtrine D ¹ : 5 gal/acre
florpyrauxifen-benzyl	ProcellaCOR EC: 15.85 – 31.7 oz/acre (see product label)
flumioxazin	Alligare Flumigard, Clipper, Propeller, Schooner, Semera: 12.0 oz/acre Alligare Flumigard SC, Schooner SC, Semera SC: 12.0 oz/acre
glyphosate	Alligare Glyphosate 5.4 ¹ , Aqua Neat ¹ , AquaPro ¹ , AquaStar ¹ , Rodeo ¹ , Roundup Custom for Aquatic and Terrestrial Use ¹ , Shoreline Defense ¹ , Shore-Klear ¹ : see product label for target species application rate
glyphosate (Including surfactant)	GlyphoMate 41: 8.5 pints/acre ShoreKlear-Plus: 2.6 gal/acre
imazamox	Castaway ¹ , Clearcast ¹ , Top Deck ¹ : 128 oz/acre
imazapyr	Alligare Ecomazapyr 2 SL ^{1, 2} , Alligare Imazapyr 4 SL ^{1, 2} , Arsenal ^{1, 2} , Habitat ^{1, 2} , Polaris AC Complete ^{1, 2} , Polaris ^{1, 2} : see product label for target species application rate
triclopyr	Navitrol ¹ , Renovate 3 ¹ : 8.0 qts/acre Navitrol DPF, Renovate OTF: 67.0 lbs/acre

CATEGORY: ADDITIVES

Table 4: Additives Approved for Use Under the ANC Standard Permit

ACTIVE INGREDIENT	BRAND NAME AND MAXIMUM APPLICATION RATE
n/a (adjuvants, sink/drift control)	AGRI-DEX: 4.0 pints/acre AMP Activator: 0.5 gal/acre-foot Aquasticker: 1-20 lbs/acre Cygnet Plus: <ul style="list-style-type: none"> • 2.5 pints/acre-foot (submergent) • 1.0 pint/acre (emergent) PolyAn: 1.0 gal/acre-foot PolyAn (emergent): 3-8 oz/100 gal spray solution TopFilm: 1.0 pint/acre
n/a (tracer dye)	All Approved Dye Products: <ul style="list-style-type: none"> • 0.01 gal/acre-foot (submergent) • 0.33 to 1.0 ounce per gallon concentrate (emergent)

¹ Certain herbicide labels require or strongly recommend the use of additives to aid herbicide uptake, improve effectiveness, and minimize non-target impacts.

² Certification requirements may apply. See the product label.