



Department of Environment, Great Lakes, and Energy  
Water Resources Division

**CHEMICALS APPROVED FOR USE UNDER  
THE AQUATIC NUISANCE CONTROL STANDARD PERMITS**

The following list of chemicals is approved for use under Aquatic Nuisance Control Standard Permits. Each standard permit and approved treatment map(s) specifies the conditions of chemical treatment for a given waterbody. In order 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.

**Category: Algae Control**

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

Active Ingredient	Brand Name: Maximum Application Rate
chelated copper	Airmax Algae Defense, Alligare 8% Copper, K-Tea, Symmetry NXG: <ul style="list-style-type: none"> <li>• 0.7 gal/acre-foot (planktonic/filamentous algae)</li> <li>• 1.7 gal/acre-foot (macroalgae)</li> </ul> Algi-Cure, Algimycin PWF: <ul style="list-style-type: none"> <li>• 1.06 gal/acre-foot (planktonic/filamentous algae)</li> <li>• 2.13 gal/acre-foot (macroalgae)</li> </ul> Alligare Argos, Captain, Captain XTR, Cutrine-Plus: <ul style="list-style-type: none"> <li>• 0.6 gal/acre-foot (planktonic/filamentous algae)</li> <li>• 1.2 gal/acre-foot (macroalgae)</li> </ul> Cutrine Plus Granular: 60.0 lbs/acre
chelated copper (with surfactant)	Cutrine Ultra: <ul style="list-style-type: none"> <li>• 0.6 gal/acre-foot (planktonic/filamentous algae)</li> <li>• 1.2 gal/acre-foot (macroalgae)</li> </ul>
copper sulfate	All approved products (unless specified below): <ul style="list-style-type: none"> <li>• 2.6 lbs/acre-foot (planktonic/filamentous algae)</li> <li>• 4.4 lbs/acre-foot (macroalgae)</li> </ul> EarthTec: <ul style="list-style-type: none"> <li>• 0.33 gal/acre-foot (planktonic algae)</li> <li>• 0.55 gal/acre-foot (filamentous algae/macroalgae)</li> </ul> Formula F-30 Algae Control: 2.0 gal/acre foot 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"> <li>• 17.0 lbs/acre-foot (maintenance)</li> <li>• 170.0 lbs/acre-foot (heavy growth)</li> </ul> GreenClean PRO: <ul style="list-style-type: none"> <li>• 10.0 lbs/acre-foot (maintenance)</li> <li>• 100.0 lbs/acre-foot (heavy growth)</li> </ul> PAK 27, Phycomycin SCP Algaecide and Oxidizer: <ul style="list-style-type: none"> <li>• 100.0 lbs/acre-foot</li> </ul>

**Category: Submerged Plant Control**

**Table 2: Chemicals Approved for Submerged Plant Control Under the ANC Standard Permit**

Active Ingredient	Brand Name: Maximum Application Rate
2,4-D – granular	Aquacide: 60.0 lbs/acre-foot Navigate: 56.8 lbs/acre-foot Sculpin G: 65.4 lbs/acre-foot
2,4-D and triclopyr	Renovate Max G: 93.7 lbs/acre-foot
carfentrazone	Stingray <sup>12</sup> : 0.143 gal/acre-foot
chelated copper	Copper-EDA, Current, Harpoon, Komeen: 3.3 gal/acre-foot Nautique <sup>1</sup> : 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 <sup>1</sup> , Dessicash <sup>1</sup> , Harvester <sup>1</sup> , Littora <sup>1</sup> , Nufarm Diquat <sup>1</sup> , Reward <sup>1</sup> , Solera <sup>1</sup> , Tribune <sup>1</sup> , Tsunami <sup>1</sup> , Ultra Pondweed Defense <sup>1</sup> : 2.0 gal/acre Weedtrine D <sup>1</sup> : 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 <sup>3</sup> : 3.17- 79.25 oz/ac-ft (see product label)
flumioxazin	Alligare Flumigard, Clipper, Propeller, Schooner, Semera: 1.1 lbs/acre-foot
imazamox	Clearcast <sup>1</sup> : 173 oz/acre-foot
triclopyr	Navitrol <sup>1</sup> , Renovate 3 <sup>1</sup> : 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: 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
diquat dibromide	Alligare Diquat <sup>1</sup> , Dessicash <sup>1</sup> , Harvester <sup>1</sup> , Littora <sup>1</sup> , Nufarm Diquat <sup>1</sup> , Reward <sup>1</sup> , Solera <sup>1</sup> , Tribune <sup>1</sup> , Tsunami <sup>1</sup> , Ultra Pondweed Defense <sup>1</sup> : 2.0 gal/acre Weedtrine D <sup>1</sup> : 5 gal/acre
florpyrauxifen-benzyl	ProcellaCOR EC <sup>3</sup> : 15.85 – 31.7 oz/acre (see product label)
carfentrazone	Stingray <sup>1,2</sup> : contact SePRO or EGLE for recommended target species application rates
flumioxazin	Alligare Flumigard, Clipper, Propeller, Schooner, Semera: 12.0 ounces/acre
glyphosate	Alligare Glyphosate 5.4 <sup>1</sup> , Aqua Neat <sup>1</sup> , AquaPro <sup>1</sup> , AquaStar <sup>1</sup> , Rodeo <sup>1</sup> , Roundup Custom for Aquatic and Terrestrial Use <sup>1</sup> , Shoreline Defense <sup>1</sup> , Shore-Klear <sup>1</sup> : see product label for target species application rate
glyphosate (including surfactant)	GlyphoMate 41: 8.5 pints/acre ShoreKlear-Plus: 2.6 gal/acre
imazamox	Clearcast <sup>1</sup> : 1.0 gal/acre
imazapyr	Alligare Ecomazapyr 2 SL <sup>1,2</sup> , Alligare Imazapyr 4 SL <sup>1,2</sup> , Arsenal <sup>1,2</sup> , Habitat <sup>1,2</sup> , Polaris AC Complete <sup>1,2</sup> , Polaris <sup>1,2</sup> : see product label for target species application rate
triclopyr	Navitrol <sup>1</sup> , Renovate 3 <sup>1</sup> : 8.0 quarts/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: Maximum Application Rate
n/a (adjuvants, sink/drift control)	AGRI-DEX: 4.0 pints/acre Aquasticker: 1-20 lbs/acre Cygnet Plus: <ul style="list-style-type: none"> <li>• 2.5 pints/acre-foot (submergent)</li> <li>• 1.0 pint/acre (emergent)</li> </ul> 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"> <li>• 0.01 gal/acre-foot (submergent)</li> <li>• 0.33 to 1.0 ounce per gallon concentrate (emergent)</li> </ul>

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

<sup>2</sup> Certification requirements may apply. See the product label.

<sup>3</sup> For permits issued in 2019: Prior to each treatment with ProcellaCOR, the “ProcellaCOR Treatment Notification” Schedule of Compliance (SOC) must be submitted in the MiWaters permitting database no less than two (2) weeks before the anticipated treatment date. The notification form will require an updated treatment map delineating the ProcellaCOR treatment area and the prescribed application rate (in ounces per acre-foot). Approval of the SOC by EGLE is required prior to the treatment with ProcellaCOR.

For information or assistance on this publication, please contact the Aquatic Nuisance Control Program through the EGLE Environmental Assistance Center at 800-662-9278. This publication is available in alternative formats upon request.

EGLE does not discriminate on the basis of race, sex, religion, age, national origin, color, marital status, disability, political beliefs, height, weight, genetic information, or sexual orientation in the administration of any of its programs or activities, and prohibits intimidation and retaliation, as required by applicable laws and regulations.