

## Appendix F: Miscellaneous Information

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**Common names, trade names, formulations and registrants or suppliers of EPA-registered aquatic herbicides and algicides.** Labels, MSDS and other product information is available on the websites of most registrants or suppliers. This is not a complete listing of all products that are registered for aquatic use and does not include products labeled only for use on ditchbanks. The mention of a trade or brand name does not constitute an endorsement of the product by the authors, editors or AERF.

Bispyribac-sodium		
Trade name	Formulation	Registrant or supplier
Tradewind	Water-soluble powder	Valent USA Corp.

Carfentrazone		
Trade name	Formulation	Registrant or supplier
Stingray	Liquid	SePRO Corp.

Diquat dibromide		
Trade name	Formulation	Registrant or supplier
Alligare Diquat	Liquid	Alligare LLC
Harvester	Liquid	Applied Biochemists
Littora	Liquid	SePRO Corp.
Nufarm Diquat SPC 2SL	Liquid	Nufarm Americas Inc.
Reward	Liquid	Syngenta
Weedtrine-D	Liquid	Applied Biochemists

Endothall		
Trade name	Formulation	Registrant or supplier
Hydrothol 191 <sup>1</sup>	Liquid	United Phosphorus Inc.
Hydrothol Granular <sup>1</sup>	Granular	United Phosphorus Inc.
Teton <sup>1</sup>	Liquid	United Phosphorus Inc.
Aquathol K <sup>2</sup>	Liquid	United Phosphorus Inc.
Aquathol Super K <sup>2</sup>	Granular	United Phosphorus Inc.
Cascade <sup>2</sup>	Liquid	United Phosphorus Inc.

<sup>1</sup> Amine salt of endothall

<sup>2</sup> Potassium salt of endothall

Flumioxazin		
Trade name	Formulation	Registrant or supplier
Clipper	Water-dispersible granule	Valent USA Corp.

Fluridone		
Trade name	Formulation	Registrant or supplier
Alligare Fluridone	Liquid	Alligare LLC
Avast!	Liquid	SePRO Corp.
RESTOREs.m.a.r.t	Liquid	Applied Biochemists
Sonar AS	Liquid	SePRO Corp.
Sonar Genesis	Liquid	SePRO Corp.
Sonar H4C	Granular	SePRO Corp.
SonarOne	Granular	SePRO Corp.
Sonar PR	Granular	SePRO Corp.
Sonar Q	Granular	SePRO Corp.
Sonar RTU	Liquid	SePRO Corp.

Glyphosate		
Trade name	Formulation	Registrant or supplier
Alligare Glyphosate 5.4	Liquid	Alligare LLC
Aquaneat	Liquid	Nufarm Americas Inc.
AquaPRO	Liquid	SePRO Corp.
Shore-Klear	Liquid	Applied Biochemists
ShoreKlear-Plus	Liquid	Applied Biochemists

Imazamox		
Trade name	Formulation	Registrant or supplier
Clearcast	Liquid	SePRO Corp.
Clearcast 2.7G	Granular	SePRO Corp.

Imazapyr		
Trade name	Formulation	Registrant or supplier
Alligare Ecomazapyr	Liquid	Alligare LLC
Habitat	Liquid	SePRO Corp.
Nufarm Polaris AC Complete	Liquid	Nufarm Americas Inc.
Nufarm Polaris Herbicide	Liquid	Nufarm Americas Inc.

Penoxsulam		
Trade name	Formulation	Registrant or supplier
Galleon SC	Liquid	SePRO Corp.

Topramezone		
Trade name	Formulation	Registrant or supplier
Oasis	Liquid	SePRO Corp.

Triclopyr		
Trade name	Formulation	Registrant or supplier
Navitrol <sup>1</sup>	Liquid	Applied Biochemists
Navitrol DPF <sup>1</sup>	Granular	Applied Biochemists
Alligare Triclopyr 3SL <sup>2</sup>	Liquid	Alligare LLC
Garlon 3A <sup>2</sup>	Liquid	Dow AgroSciences
Renovate 3 <sup>2</sup>	Liquid	SePRO Corp.
Renovate OTF <sup>2</sup>	Granular	SePRO Corp.
Renovate LZR <sup>2</sup>	Granular	SePRO Corp.
Tahoe 3A <sup>2</sup>	Liquid	Nufarm Americas Inc.

<sup>1</sup> Triclopyr acid

<sup>2</sup> Triclopyr amine

Triclopyr + 2,4-D amine		
Trade name	Formulation	Registrant or supplier
Aquasweep	Liquid	Nufarm Americas Inc.
Renovate LZR MAX	Granular	SePRO Corp.
Renovate Max G	Granular	SePRO Corp.

2,4-D acid		
Trade name	Formulation	Registrant or supplier
Hardball <sup>1</sup>	Liquid	Helena Chemical Co.
Sinkerball <sup>1</sup>	Liquid	Helena Chemical Co.
Alligare 2,4-D Amine <sup>2</sup>	Liquid	Alligare LLC
Clean Amine <sup>2</sup>	Liquid	Loveland/CPS
Sculpin <sup>2</sup>	Granular	SePRO Corp.
Solution Water Soluble <sup>2</sup>	Granular	Nufarm Americas Inc.
Weedar 64 <sup>2</sup>	Liquid	Nufarm Americas Inc.
Weedestroy AM 40 <sup>2</sup>	Liquid	Nufarm Americas Inc.
Navigate <sup>3</sup>	Granular	Applied Biochemists

<sup>1</sup> 2,4-D acid

<sup>2</sup> 2,4-D amine

<sup>3</sup> 2,4-D butoxy-ethyl ester

Peroxides		
Trade name	Formulation	Registrant or supplier
GreenClean	Liquid	BioSafe Systems
GreenClean PRO	Granular	BioSafe Systems
PAK 27: <i>Hydrogen peroxide</i>	Granular	SePRO Corp.
Phycomycin SCP: <i>Sodium carbonate peroxyhydrate</i>	Granular	Applied Biochemists

Dyes		
Trade name	Formulation	Registrant or supplier
Aquashade	Liquid	Applied Biochemists
SePRO BLUE	Liquid	SePRO Corp.
SePRO BLUE WSP	Water-soluble pack	SePRO Corp.
SePRO Natural Reflections	Liquid	SePRO Corp.

Copper products		
Trade name	Formulation	Registrant or supplier
Captain <sup>1</sup>	Liquid	SePRO Corp.
Captain XTR <sup>1</sup>	Liquid	SePRO Corp.
Alligare 8% Copper <sup>2</sup>	Liquid	Alligare LLC
K-tea <sup>2</sup>	Liquid	SePRO Corp.
Symmetry NXG <sup>2</sup>	Liquid	United Phosphorus Inc.
Nautique <sup>3</sup>	Liquid	SePRO Corp.
Citrine-Plus <sup>4</sup>	Liquid	Applied Biochemists
Citrine-Plus Granular <sup>4</sup>	Granular	Applied Biochemists
Current <sup>5</sup>	Liquid	United Phosphorus Inc.
Harpoon <sup>5</sup>	Liquid	Applied Biochemists
Harpoon Granular <sup>5</sup>	Granular	Applied Biochemists
Komeen <sup>5</sup>	Liquid	SePRO Corp.
Komeen Crystal <sup>5</sup>	Granular	SePRO Corp.
AB Brand Copper Sulfate Crystals <sup>6</sup>	Granular	Applied Biochemists
Formula F-30 <sup>6</sup>	Liquid	Diversified Waterscapes
SeClear <sup>7</sup>	Liquid	SePRO Corp.
Clearigate	Liquid	Applied Biochemists
Citrine-Ultra	Liquid	Applied Biochemists

<sup>1</sup> Copper chelate: ethanolamine

<sup>2</sup> Copper chelate: triethanolamine

<sup>3</sup> Copper chelate: triethanolamine + ethylenediamine

<sup>4</sup> Copper ethanolamine complex, mixed

<sup>5</sup> Copper ethylene diamine complex

<sup>6</sup> Copper sulfate

<sup>7</sup> Copper sulfate pentahydrate and water quality enhancer

<sup>8</sup> Emulsified copper ethanolamine complex, mixed

#### For more information:

Alligare, LLC

[www.alligare.com](http://www.alligare.com)

Applied Biochemists (A Lonza Business)

[www.appliedbiochemists.com](http://www.appliedbiochemists.com)

Diversified Waterscapes

[www.dwiwater.com](http://www.dwiwater.com)

Dow AgroSciences

[www.dowagro.com](http://www.dowagro.com)

Helena Chemical Co.

[www.helenachemical.com](http://www.helenachemical.com)

Loveland/CPS

[www.lovelandproducts.com](http://www.lovelandproducts.com)

Nufarm Americas Inc

[www.nufarm.com/USIVM/IVM](http://www.nufarm.com/USIVM/IVM)

SePRO Corporation

[www.sepro.com](http://www.sepro.com); [www.stewardsofwater.com](http://www.stewardsofwater.com)

Syngenta

[www.syngenta.com](http://www.syngenta.com)

United Phosphorus, Inc.

[www.upi-usa.com](http://www.upi-usa.com)

Valent USA Corporation

[www.valentpro.com](http://www.valentpro.com)

## Common Conversion Factors (David Petty, NDR Research)

To change	To	Multiply by
acres	hectares	0.4047
acres	square feet	43,560
centimeters	inches	0.3937
centimeters	feet	0.03281
cubic feet	cubic meters	0.0283
cups	ounces (liquid)	8
cubic meters	cubic feet	35.3145
cubic meters	cubic yards	1.3079
feet/second	miles/hour	0.6818
gallons (U.S.)	liters	3.7853
grams	ounces (avdp)	0.0353
grams	pounds	0.002205
hectares	acres	2.471
inches	centimeters	2.54
kilograms	pounds (avdp)	2.2046
kilometers	miles	0.6214
liters	gallons (U.S.)	0.2642
liters	pints (liquid)	2.1134
liters	quarts (liquid)	1.0567
meters	feet	3.2808
meters	yards	1.0936
miles	kilometers	1.6093
miles	feet	5280
miles/hour	feet/minute	88
ounces (avdp)	grams	28.3495
ounces (avdp)	pounds	0.0625
ounces (liquid)	pints (liquid)	0.0625
ounces (liquid)	quarts (liquid)	0.03125
pints (liquid)	liters	0.4732
pints (liquid)	ounces (liquid)	16
pounds (avdp)	kilograms	0.4536
pounds	ounces	16
quarts (liquid)	liters	0.9463
quarts (liquid)	ounces (liquid)	32
square feet	square meters	0.0929
square kilometers	square miles	0.3861
square meters	square feet	10.7639
yards	meters	0.9144
1 ppm	= 1 mg/L or 1 mg/kg	
1 ppb	= 1 µg/L or 1 µg/kg	

## Common Water Quality Parameters (David Petty, NDR Research)

**Alkalinity:** The water's ability to neutralize acids, measured in milligrams per liter of total alkalinity as equivalent calcium carbonate (mg/L CaCO<sub>3</sub>). Alkalinity helps regulate pH and metal content in water. Levels of 20-200 mg/L are common in fresh water systems.

**Conductivity:** The measure of the capacity of water to conduct an electric current, measured in either microSiemens per centimeter of water at 25 degrees centigrade (µS/cm @ 25 °C) or micromhos per centimeter (µmhos/cm). Conductivity is an indirect measure of dissolved solids such as chloride, nitrate, sulfate, phosphate, sodium, magnesium, calcium and iron.

**Dissolved oxygen (DO):** The amount of oxygen measured in water in milligrams per liter (mg/L). In general, rapidly moving water contains more dissolved oxygen than slow or stagnant water and colder water contains more dissolved oxygen than warmer water. Low DO levels can lead to fish kills. Optimal DO for many species is between 7 and 9 mg/L.

**Hardness:** Water hardness is generally the measure of the cations of magnesium and calcium in the water, usually expressed as mg/L. Waters with a total hardness in the range of 0 to 60 mg/L are termed soft; from 60 to 120 mg/L moderately hard; from 120 to 180 mg/L hard; and above 180 mg/L very hard.

**pH:** Scale of values from 0 to 14 which indicate the acidity of a waterbody. Water is acidic if pH is below 7, with increasing acidity with lower values. Water is basic when above 7, and more basic with increasing values. A value of 7 is considered neutral pH. Aquatic organisms differ in the pH range they can tolerate and flourish in.

**Turbidity:** A measure of the amount of particulate matter that is suspended in water, and is measured in Nephelometric Turbidity Units (NTU). Water that has high turbidity appears cloudy or opaque. High turbidity can cause increased water temperatures because suspended particles absorb more heat and can also reduce the amount of light penetrating the water.