

Aquatic Toxicity

*Note: **HIGHER** LC50/EC50 values signify a **LESS** toxic substance**

**The first listed material is not a fire suppression agent but is listed for comparison only*

Company	Product	Class of	LC50/EC50	EPA	Notes
Colgate-Palmolive Company	Palmolive Liquid Hand Wash	Fish	33ppm	Slightly Toxic	Data was inferred from ingredient toxicity test results as no product level test results were published.
	Palmolive Liquid Hand Wash	Invertebrates	108ppm	Practically NonToxic	
	Palmolive Liquid Hand Wash	Algae	100ppm	Slightly Toxic	
Fire Suppression Innovations CLASS A-B FIRES	GreenFire® Wetting Agent	Fish	>106ppm	Practically NonToxic	Tests performed by Coastal Bioanalysts, Inc. An NELAP accredited laboratory
	GreenFire® Wetting Agent	Invertebrates	771ppm	Practically NonToxic	
	GreenFire® Wetting Agent	Algae	863ppm	Practically NonToxic	

Amount in an Olympic Swimming Pool to have effect

Company	Substance/Product	Type	LC50/EC50	EPA Classification	Amount in an Olympic swimming pool to have effect
Examples of Common Products and Substances With Their Aquatic Toxicity	Permethrin (flea spray)	Invertebrates	.001ppm	very highly toxic	1/2 teaspoon
	Copper Sulfate (blue crystals in agriculture and plumbing)	Algae	0.435ppm	highly toxic	4.5 cups
	Ammonia (5% in typical household use)	Fish	2ppm	moderately toxic	1.3 gallons
	Palmolive Liquid Hand Wash	Fish	33ppm	Slightly Toxic	22 gallons
	Palmolive Liquid Hand Wash	Invertebrates	108ppm	Practically NonToxic	71 gallons
	Palmolive Liquid Hand Wash	Algae	100ppm	Slightly Toxic	66 gallons
Fire Suppression Innovations CLASS A-B FIRES	GreenFire® Wetting Agent	Fish	>106ppm	practically nontoxic	68 gallons
	GreenFire® Wetting Agent	invertebrates	771ppm	practically nontoxic	509 gallons
	GreenFire® Wetting Agent	Algae	863ppm	practically nontoxic	570 gallons

EPA TABLE

LC50 (ppm)	EPA Toxicity Category	Amount in olympic sized swimming pool
<0.1	Very Highly Toxic	Less than 1 cup
>0.1-1	Highly Toxic	Between 1 cup and and 11 cups
>1-10	Moderately Toxic	Between 11 cups and 6.6 gallons
>10-100	Slightly Toxic	Between 6.6 gallons and 66 gallons
>100	Practically Non-Toxic	Greater than 66 gallons