



The Forest Service has adopted several standard Environmental Protection Agency (EPA) tests to assess mammalian toxicity and irritation to skin and eyes.

The product concentrate and the most concentrated mixed product, based on approved mix ratios, are tested for acute oral and acute dermal toxicity. The results of these tests are reported as an  $LD_{50}$  value or as greater than an  $LD_{50}$  if the product is less toxic, higher value, than is required by the specification.

It is important to remember when comparing  $\underline{LD}_{50}$  values, that the lower the  $LD_{50}$  value, the greater the toxicity.

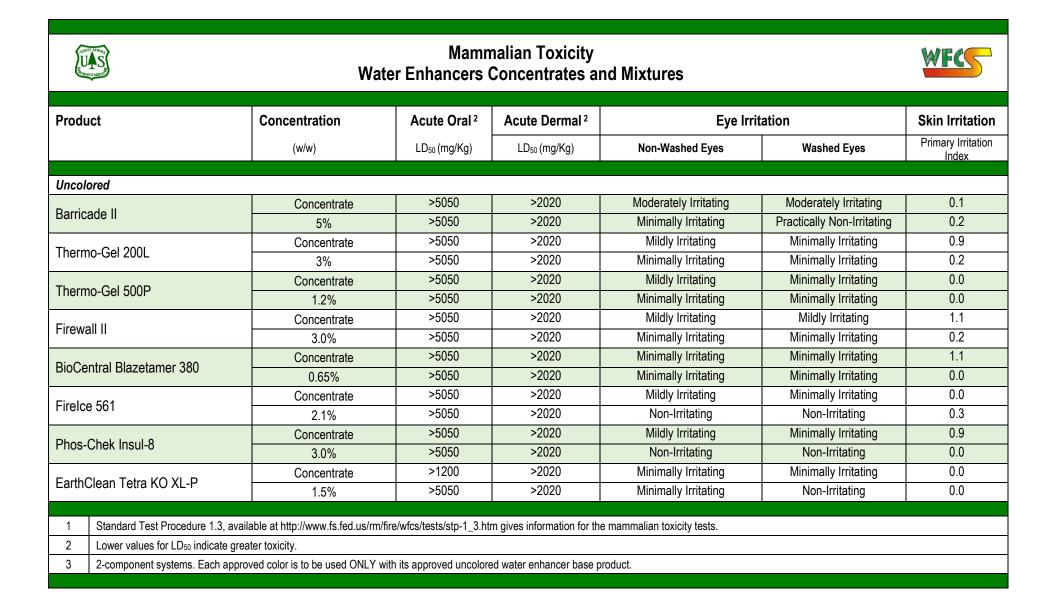
Standard EPA skin and eye irritation tests are also performed on the product concentrate and the most concentrated mixed product. The results of these tests provide information needed to specify reasonable personal protective equipment necessary when handling the product.

When comparing values for eye or skin <u>irritation scores</u>, the <u>lower</u> the value, the lower the irritation.

Because of individual differences, a product that has acceptable performance on these tests may still cause irritation, allergic reaction, or other sensitizations. If this occurs, the supervisor should be notified as more stringent hygiene practices or additional protective gear may be helpful. In some instances, changes in duties may be required.

## Product Performance Data on next page

1 Standard Test Procedure 1.3 gives instructions for the mammalian toxicity tests.



LANS STORY	Mammalian Toxicity <sup>1</sup> Water Enhancers Concentrates and Mixtures					WFC
Product	Concentration	Acute Oral	Acute Dermal	Eye Irritation		Skin Irritation
	(w/w)	LD₅₀ (mg/Kg)	LD₅₀ (mg/Kg)	Non-Washed Eyes	Washed Eyes	Primary Irritation Index
Colored Product – One	Component					
Firelce HVB-Fx	Colored Concentrate	>5000	>2020	n/a	Minimally Irritating	0.0
	Mixed at 2.7%	>5000	>2020	n/a	Non-Irritating	0.0
Colored Product – Two	Component Plus Water <sup>2</sup>					
Thermo-Gel 200L Blue	Thermo-Gel 200L Uncolored Concentrate	>5050	>2020	Mildly Irritating	Minimally Irritating	0.9
	Color Concentrate	>5050	>2020	Non-Irritating	Minimally Irritating	0.0
	Ready to Use <sup>3</sup> Evaluated at 0.1125% TG Blue color in water; added to dilute uncolored Thermo-Gel 200L to prepare a 1.5% mixture of colored 200L.	>5050	>2020	Minimally Irritating	Minimally Irritating	0.0
Firelce Cool Blue-F	FireIce Uncolored Concentrate	>5050	>2020	Mildly Irritating	Minimally Irritating	0.0
	Firelce Cool Blue Color Concentrate	>5050	>2020	Minimally Irritating	Minimally Irritating	0.0
	Ready to Use <sup>3</sup> - Evaluated at 2.0 g Cool Blue-F color per gallon of water; used to dilute FireIce uncolored, concentrate at 0.18 lb per gallon of colored water.	>5050	>2020	Non-Irritating	Non-Irritating	0.0
1 Standard Test Pro	cedure 1.3, gives information for the mammalian toxicity tests.					
2 Lower values for L	alues for LD <sub>50</sub> indicate greater toxicity.					
3 2-component syst	ns. Each approved color is to be used ONLY with its approved uncolored water enhancer base product.					
	shown on the Qualified Products List (QPL), is the <b>combination of un</b> <b>nixed product within the qualified use range</b> . Results of toxicity test of					as required to