111801

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: November 15, 1979

SUBJECT: Heavy Metals in Baquacil, Res. No. 10182-19

FROM: Robert Zendzian, Ph.D.
Toxicology Branch/HED (TS-769)

TO: Ann Rosenkranz
Aquatic Biologist, Ecological Effects Branch, HED

THRU: William M. Butler
Acting Chief, Toxicology Branch/HED (TS-769)

In reference to your memo of November 5, 1979 on Baquacil, the trace quantities of heavy metals present in Baquacil pose no hazard to human health when used as directed in swimming pools.

The formulted Baquacil contains 20% active ingredient, which itself contains iron (4 ppm), lead (1 ppm), chromium (6 ppm), zinc (320 ppm) and mercury, arsenic and cadmium (less than 0.05 ppm). Baquacil is used in swimming pools at 50 ppm or 10 ppm active ingredient. This represents a dilution factor of 1×10^{-5} for the active ingredient and its heavy metal contaminants. Their resultant concentration in pool water is given below and compared with their recommended limits in drinking water. These quantities in pool water pose no risk to human health.

	Pool Water mg/L	*Limit in Drinking Water mg/L
Iron	4×10^{-5}	0.3
Lead	1×10^{-5}	0.05
Chromium	6×10^{-5}	0.05
Zinc	320×10^{-5}	5.0
Mercury	$< 0.05 \times 10^{-5}$	**2×10^{-3}
Arsenic	$< 0.05 \times 10^{-5}$	0.05
Cadmium	$< 0.05 \times 10^{-5}$	0.01

*

* From, Toxicology, L.J. Cascrett and J. Doull, p. 459 (1975)
* EPA Proposed