NOTES ON CHEMICALS USED BY AQUARISTS

Robert T. Rosen

As I am a professional analytical chemist, I have had an opportunity to gain a little more knowledge concerning the effects of chemicals on tropical and native fish. The chemicals listed here are those anyone can obtain from his pet store. Sometimes the variety of ich medications, for example, can confuse the aquarist, and then one ends up usually asking the pet store operator which is best. The table below merely lists common chemicals and my comments on these. Hopefully this will be of use to you in the future. Some of you may use different chemicals and have had success with these. If so, please let me know- I would be interested in hearing of these.

CHEMICAL	COMMENT
sodium bicarbonate	Used to turn water alkaline (basic). Use common baking soda, its cheaper.
sodium biphosphate	Used to turn water acid.
acriflavine hydrochloride	The best remedy for fungus, a good remedy for ich and velvet. Obtain concentrated solutions or the pure powder. Ask your druggist for this. Color water light green, only adding more if it is filtered out. Use slight amount with eggs.
malachite green	The best remedy for ich, not good for fungus. Follow dosage on bottle from pet store. It's drawback is that some fish, such as tetras, some notropis, are often killed by this .
polyester	Filtering material. That in pet store two to three times more expensive than polyester fiberfill used for stuffing pillows. Buy this in a department store.
carbon	carbon is often rendered useless in your filter in minutes, or at the most, hours. Buy activated charcoal even though it is more expensive. It lasts many times longer.
tetracycline	One of the best antibiotics. Your druggist may supply these at 4¢ rather than paying 20¢ apiece in the pet store. Read the back of the card in the pet store for the correct dosage. A water change is usually required after two days in the aquarium, so it is best to put the infected fish in a small isolation aquarium and dump all the water after use.

sulfa-quinine	A combination of a sulfa drug with quinine added. A very good tonic for fish that won't eat. Rather effective with fussy eaters such as discus.
Insecticides (general class)	Be careful using insecticides anywhere near your fishtanks, including outside the house if the windows are open. Native species are very susceptable to these, small doses paralyzing the respiratory system. A rapid water change and massaging the gills may bring some fish around. Best policy- take a shower or bath after use and before feeding your fish.
bromthymol blue	Your standard pH indicator. Goes bad after several months in storage.
bromcresol blue	Relatively useless as a bacterial agent or for fungus.
chlorine deactivators	This chemical only should be used in areas of very heavy chlorination and if more than one third of the water is changed. Aeration will usually degas your aquarium of chlorine in less than ½ hour, so even when setting up a new aquarium, just wait a short period of time and that tap water will be degassed.
potassium permanganate	Used to clear up cloudy aquariums. Use only as a last resort. Find out what is wrong first (uneaten food rotting-a dead fish rotting).
formalin	Used to kill external parasites. Very tricky. Use as last resort as the fish may go too. Also used to preserve fish.
copper treatments	Also very tricky as some fish will die when this is added. I have used a cup of pennies to kill the nematodes (which come from tubifex) which crawl on the sides of tanks. When the worms die, the pennies are removed and the water is slowly changed.