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Even small amounts of antifreeze can kill

Dr. Jerry Sellon

Dear Dr. Weldy's:

My husband always checks our vehicles' antifreeze strength and level this time of the year. This year, he plans on flushing the radiator and putting in new antifreeze. I am worried about my pets and my beloved backyard birds. How dangerous is this stuff?

-Faithful Reader

Dear Reader:

Plenty dangerous! Ethylene Glycol is the main ingredient in antifreeze and is highly toxic. Very small amounts can cause kidney failure, heart and breathing difficulty, brain damage and even death. It is most likely the most dangerous household hazard in America.

Each year thousands of animals are accidentally poisoned by ethylene glycol. An unimaginable number of wildlife and other animals fall victim to improperly disposed antifreeze that is dumped down drains, sewers or on the ground.

Very small amounts can kill - a teaspoon can be lethal to a cat. Some animals may survive if vomiting is induced immediately, activated charcoal is administered orally and ethyl alcohol is given intravenously. Unfortunately in animals it is rarely diagnosed early enough to prevent death due to kidney failure. The ethylene glycol converts to oxalic acid which damages the kidneys and often by the time the animal's owner notices the initial depression, irreversible damage has occurred.

Two thirds of Veterinarians surveyed by a professional research firm reported at least once confirmed or suspected antifreeze incident within the previous year. In my career, I have also encountered cases of this poison in cattle, horses, and small ruminants - all due to improper disposal of used antifreeze.

Consider the treatise of overheated radiators spilling onto a driveway, car accidents that puncture radiators, leaking hoses and water pumps and sloppy addition of ethylene glycol to top off a cooling system this time of year.

What can be done? First of all, a non-toxic antifreeze works just as well and may last longer in your auto. Engine coolants that are formulated with propylene glycol are essentially non-toxic and many car manufacturers state that they may be used without affecting warranty coverage. It is available at many stores that sell auto supplies.

Have your husband replace the old antifreeze with propylene glycol and make sure the old stuff is turned in as a hazardous waste.