

**And more EDTA feedback...**

Conrad Heins

Your article on using EDTA to cure sulphated batteries was fascinating. We will experiment ourselves on some of the badly sulphated telephone batteries (2 volt, 1200 amp-hour) we have at the school. Speaking as a chemist I would say that EDTA (or its sodium salts) OUGHT to do the job (in fact, why didn't I think of it?) I would guess that it works something like this:

EDTA dissolves the lead (II) sulphate that has undergone sulphation (a crystalline rearrangement that greatly reduces the surface area and hence the reactivity of the lead (II) sulphate that was formed originally).

Because EDTA forms a chelate selectively with the lead (II) ions (as opposed to metallic lead or lead (IV) ), it very gently removes the unwanted material without clogging up or otherwise damaging the highly porous structure of the active parts of the electrodes.

I suspect that the Trojan L16s have a large excess of electrode material, so you can remove an entire charge's worth in order to bring them back to life. The process probably reduces the number of deep cycles and maybe some of the amp-hour capacity, but what a trade-off!

Conrad Heins, Comstock Park, MI

**And even more EDTA feedback...**

Paul Isaak

I was absolutely fascinated by your article "New Life for Sulphated Lead-Acid Cells" in the December 90-January 91 issue of HOME POWER.

One of the reasons for my fascination is that I have used EDTA intravenously for almost 10 years in treating lead poisoning and vascular insufficiency due to plaques in the arteries. The other reason for my fascination is that I have a remote cabin across Cook Inlet at which I have to supply my own electrical power. I am currently on my 3rd set of batteries (in about 12 years) charged by a Lister Diesel generator. They are about ready to give up. I just last week culled out 8 out of 16, 6 volt batteries because of dead cells. I have a Best 48 volt inverter with 5000 watt continuous duty rating and a 20,000 watt surge capacity.

Three years ago I discarded 24 - 2+ Volt deep cycle batteries because they would no longer a charge. The batteries I now have were old when I bought them but I got them for 2 bucks apiece and they have served 3 years so I probably got my money's worth. In retrospect, I am wondering if the 24 (telephone standby) batteries were sulphated and consequently not able to hold a charge. I may have discarded them unnecessarily.

As you point out in your article, EDTA is a relatively harmless compound and can be used with relative safety (even intravenously) provided certain precautions are observed. The FDA even condones its use for lead poisoning because it effectively pulls out the stored lead (usually in the bones and teeth) from the body which is present from prolonged exposure to lead. (Radiator repair men are especially at risk and may have various symptoms due to both chronic and acute exposure.) I guess plumbers are now prohibited from using lead solder when doing plumbing in new homes.

Warm Regards, Paul G. Isaak, M.D., Box 219, Soldotna, AK 99669

**EDTA ACCESS DATA****Trailhead Supply**

325 East 1165 North, Orem, UT 84057

801-225-3931

Cost: EDTA, \$10 per pound ppd.

**Bryant Labs**

Peter Barnett

1101 5th St., Berkeley, CA 94710

415-526-3141

Cost: \$22.50 for 500 grams

**High Purity**

Peggy

POB 17376, Portland, OR 97217

503-249-2985

Cost: \$22.50 for 500 grams

Order the "Tetrasodium salt" version of EDTA.

**FIRST CLASS****HOME POWER - \$ 20**

see page 95

