

TECHNICAL BULLETIN No. 94-06.a

SUBJECT(S): DIRECT DISCHARGE OF MURIATIC ACID USED FOR POOL CLEANING AND SURFACE PREPARATION PRIOR TO PLASTER APPLICATION

SUMMARY: POOL SERVICE CONTRACTORS COMMONLY USE MURIATIC ACID TO CLEAN CEMENTITIOUS SURFACES PRIOR TO PLASTERING SWIMMING POOLS. IN SOME CASES THIS CONCENTRATED ACID WASTE IS IMPROPERLY DISCHARGED TO GROUND IN VIOLATION OF COUNTY CODE. TO RECTIFY THE SITUATION, THE ACID WASTE SHOULD BE NEUTRALIZED PRIOR TO DISCHARGE OR COLLECTED FOR PROPER DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

It is a common practice for pool service contractors to utilize muriatic acid to clean the cementitious surface prior to plastering swimming pools. Muriatic acid, also known as hydrochloric acid, is listed as a CERCLA (Comprehensive Environmental Response Compensation, and Liability Act) Hazardous Substance and a SARA (Superfund Amendment and Reauthorization Act) Section 313 Toxic Chemical by the Environmental Protection Agency (EPA). It is a human poison, toxic both by ingestion and inhalation. Extreme precaution is necessary when handling muriatic acid to protect workers and the environment.

In most cases, pool service contractors have properly neutralized the acid prior to releasing it to the ground. However, recently it has come to the attention of the Department of Planning & Environmental Protection that concentrated muriatic acid wastes have been discharged directly to the environment without any prior treatment. This is a violation of Broward County Code Section 27-353 (g)(1&2) which states, "No person shall cause, permit, suffer, or allow the usage, storage, abandonment or disposal of hazardous material:

(1) In a manner which violates a provision of any federal, state, or local government regulation; or

(2) In a manner which causes, or may cause, an unauthorized release of hazardous material".

This problem may easily and inexpensively be remedied. The acid should be diluted with a ten to one ratio of water. Then a neutralizing agent i.e. sodium bicarbonate or calcium bicarbonate should be sprinkled on the diluted acid. The neutralizing agent can easily be kept on the service truck in 25 pound buckets. Use of litmus paper or a pool test kit can then be used to determine the pH. When the pH is approximately 7.0, the neutralized acid may then be discharged. If neutralization is not possible, then the concentrated acid residue must be collected by the contractor and properly disposed in accordance with local, state and federal regulations.

FURTHER INFORMATION: For further information on proper handling and disposal of muriatic acid contact any of the following:

- Broward County at (954) 519-1260.
- Florida Department of Environmental Protection's Hazardous Waste Section in Tallahassee at (850) 245-8705.
- The RCRA Hotline at (800) 424-9346.
- The National Spa & Pool Institute, Region VII at (813) 952-9293.