CLEANING GLASSWARE

In order to ensure consistent accuracy of results glassware must be clean - not just visually but chemically. The easiest way to clean glass is immediately after use, as stains left tend to become more stubborn with time.

GENERAL CLEANING - (SOIL RESIDUES)

Wipe off all visual traces of soil with a damp tissue, wash with tap water, followed by three thorough rinses of distilled water. Dry in the oven.

CLEANING VOLUMETRIC WARE - VOLUMETRIC FLASKS

Volumetric FLASKS should only be used for the same solutions as far as possible. After transferring the solution to the appropriate "Winchester" stock bottle, swill the flask out with the pure solvent used to prepare the solution (usually distilled water, but may be Ethanol etc.) Do not attempt to dry the flask as heating cooling cycles can permanently alter the volume to a degree where the flask is useless.

BURETTES AND TAPS

BURETTES should be regularly scrubbed out with "Decon 75" 50% solution which will remove grease and dust with accumulates. A solution "tacking" and forming permanent drops held within the body of the burette. A clean burette drains freely, any drops being held by surface tension quickly running down on gentle tapping. Occasionally it is necessary to clean the burette thoroughly with CHROMIC ACID (CORROSIVE & POWERFULLY OXIDISING). The Burette is filled with a mixture of Sulphuric and Chromic acids, prepared by cautiously adding excess conc. H₂SO₄ to Potassium dichromate suspended in the solution marked Chromic acid. A dark red slurry results which is poured with great care into the body of the burette, ensuring the top is closed. Place a beaker under the burette and fill the tap and nozzle with the solution ensuring non is spilled.

Allow to stand over night. Drain the burette and rinse with distilled water into a large beaker. Pour the solution back into the bottle marked Chromic acid. If poured down the sink, slowly pour into a stream of tap water. Chromic acid is a most powerful oxidising agent and great care should be taken to ensure it does not come into contact with organic materials eg. methylated spirits, paper, cloth as a serious and sometimes explosive reaction with fire may result.

CHEMICAL RESIDUES

SILVER Dissolve the silver with conc. Nitric acid by allowing the glass to stand in the acid. If this proves to be not 100% in cleaning, cautiously use aqua regia.

SILVER CHLORIDE is readily soluble in conc. Ammonia.

BARIUM SULPHATE These residues are usually encountered in the porous glass plate of a Gouch crucible used in the determination of "soluble sulphates". After the determinations are complete, set up the crucible for filtration and allow warm conc. Sulphuric acid to drip through the crucible, gentle suction may be applied.

Ensure no water is present in the Buchner flask during the operation. Finally after removing the Sulphuric acid, wash repeatedly with distilled water using suction.