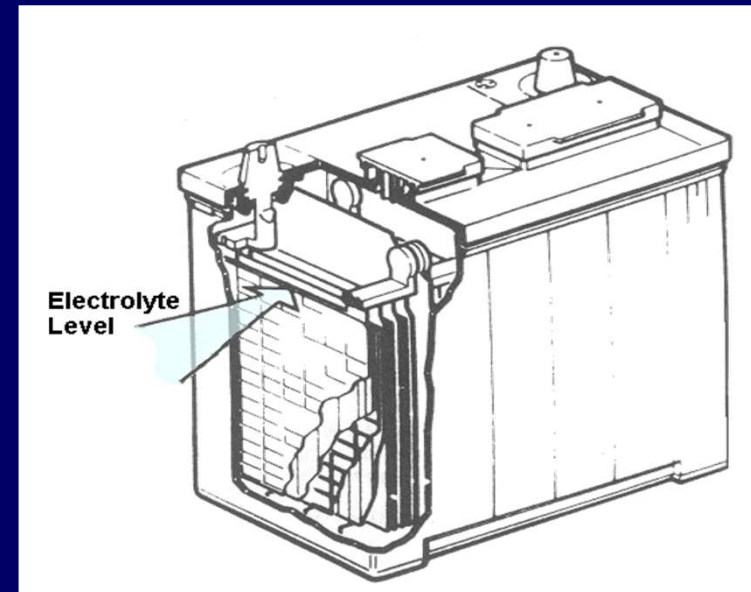


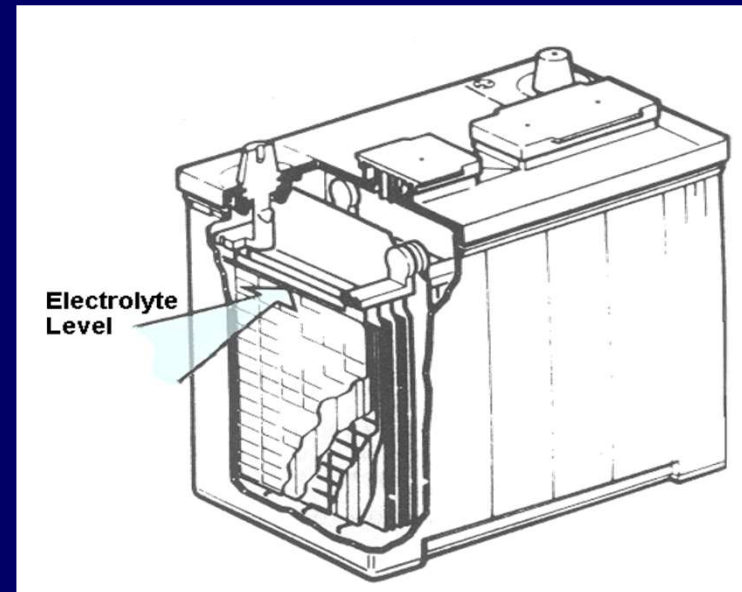
Battery Safety (Maintenance)

Safety Precautions



EAWR (Regulation 12)

Isolation?

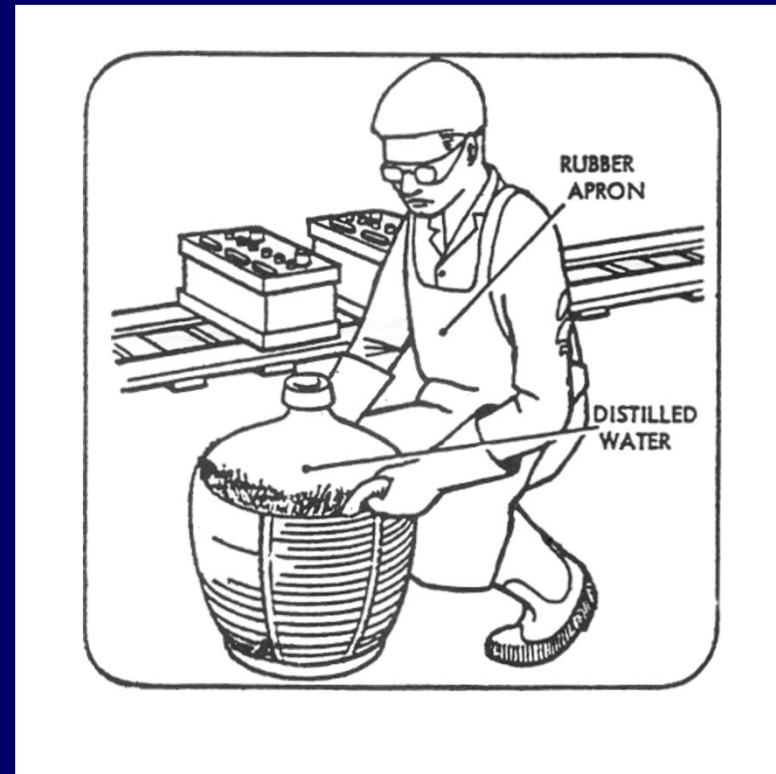


Protective Clothing (PPE)

Eye protection must be worn (Full face?)

Rubber gauntlet gloves & possibly gaiters on arms and legs

Also a full length rubber apron



Mixing Electrolyte

When diluting concentrated electrolyte to the required specific gravity

Distilled water must be used and it should

Never be added to the concentrated solution or a serious explosion may result

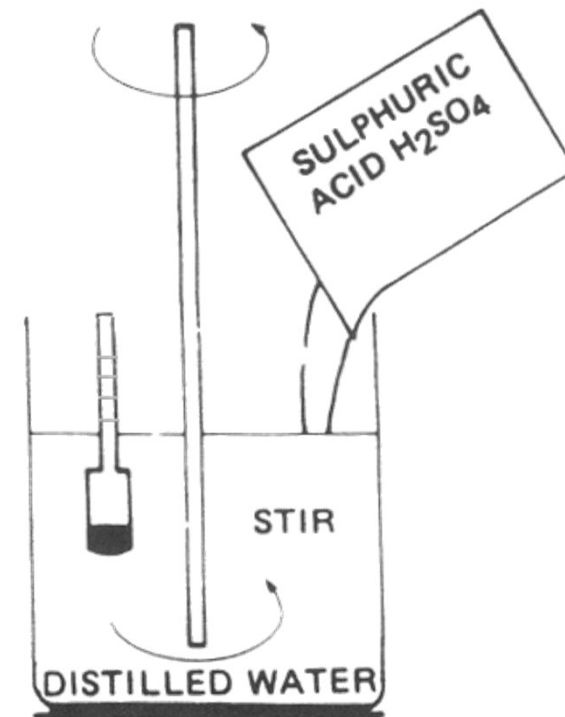


Fig. 5.17 Mixing acid and distilled water

Burns

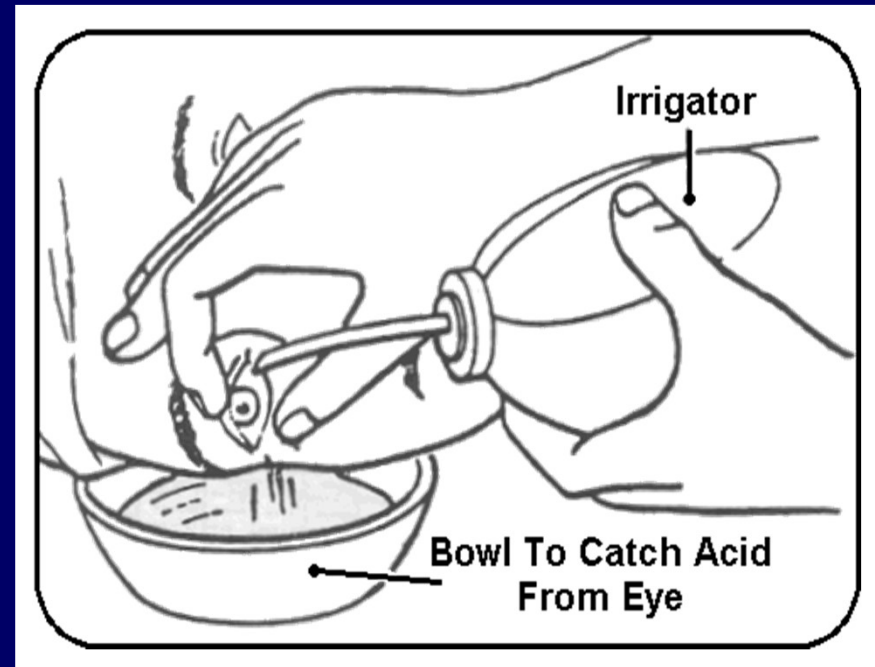
Diluted Sulphuric Acid is the electrolyte in lead acid batteries.

Alkaline batteries use a solution of Potassium Hydroxide

Both solutions are corrosive & will cause severe burns.

Acid & Alkaline Burns

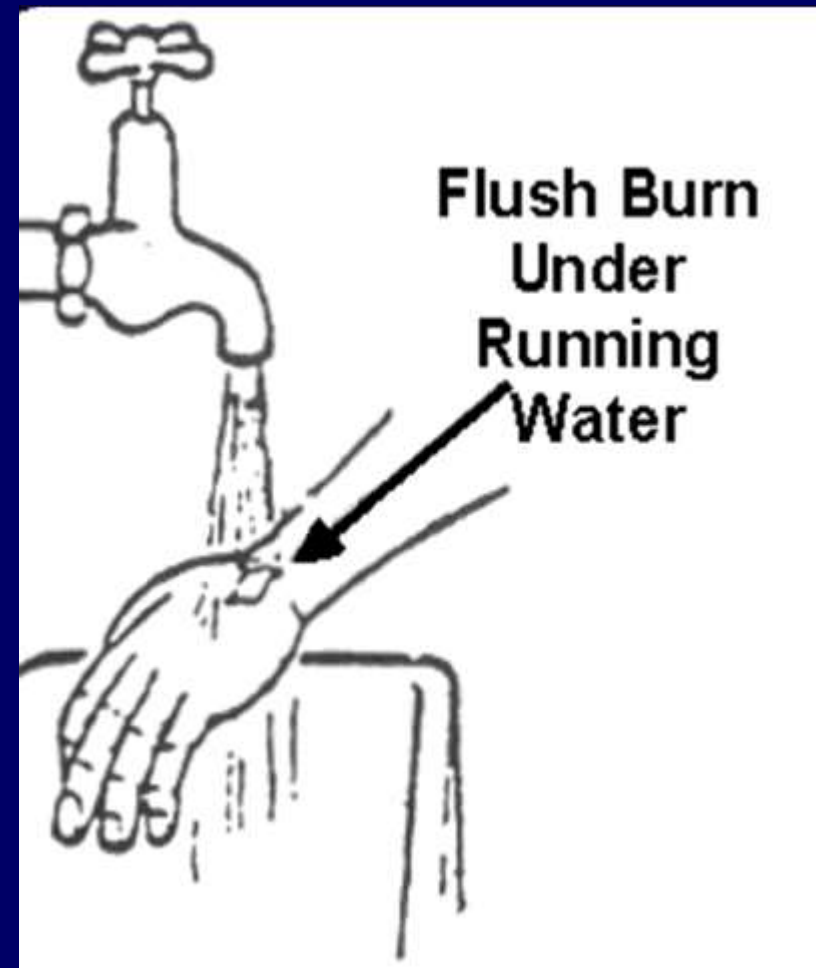
Flood the affected area immediately with water for 20 minutes.



Acid & Alkaline Burns

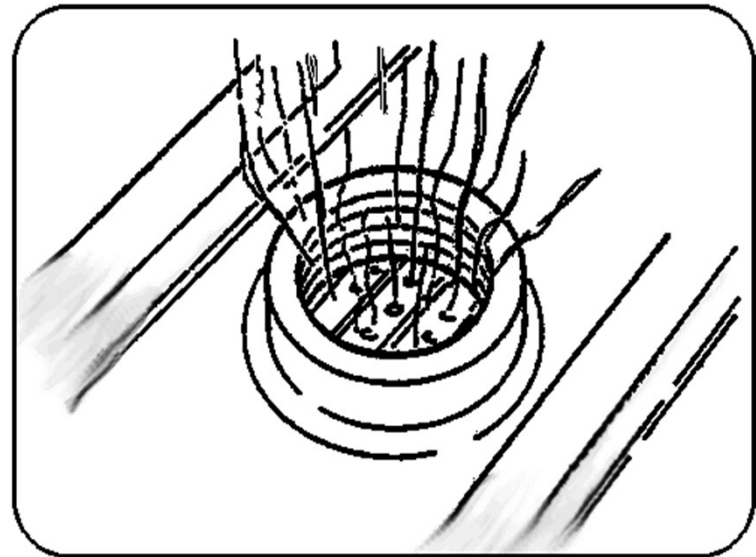
***ASAP Remove
contaminated clothing***

Seek medical attention



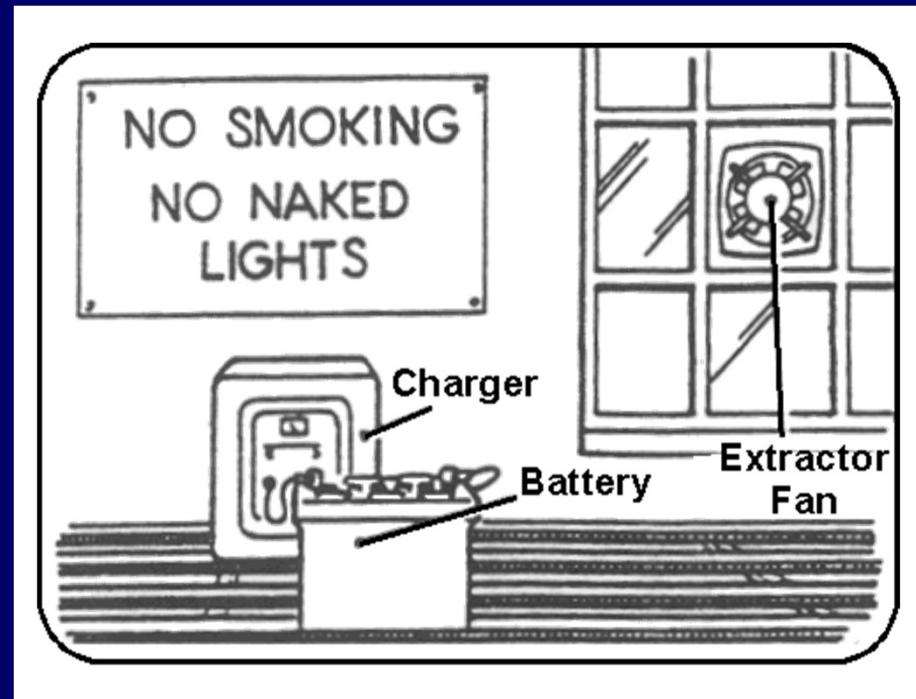
Explosion Risk

When under charge batteries give off an explosive mixture of gases, consisting of oxygen and hydrogen.



Explosion Risk (Charging)

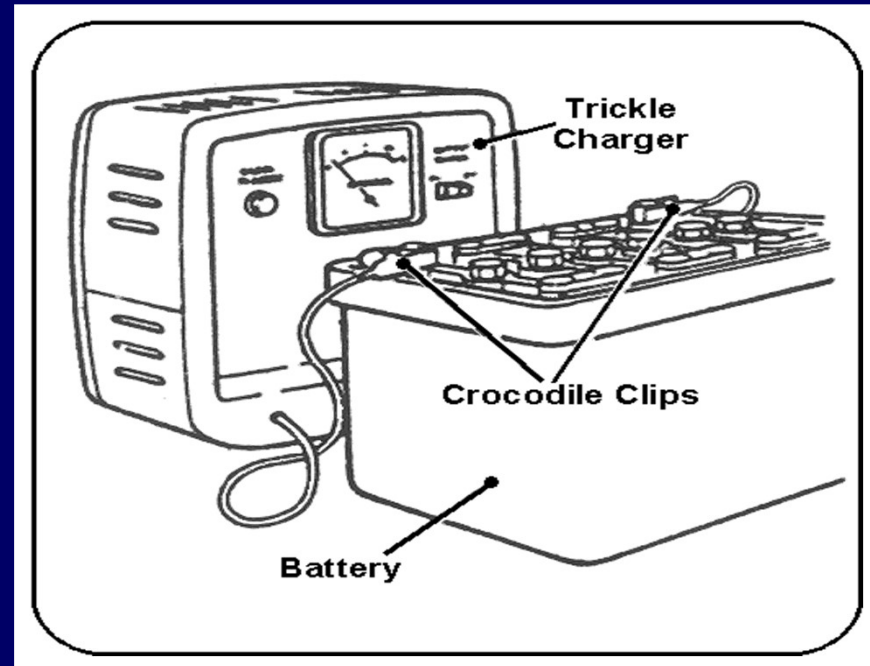
*The charging area should be well ventilated.
Notices forbidding smoking and naked lights prominently displayed.*



*Other important things to consider
Ah Rating, correct charger, Polarity, Segregation?*

Explosion Risk (Charging)

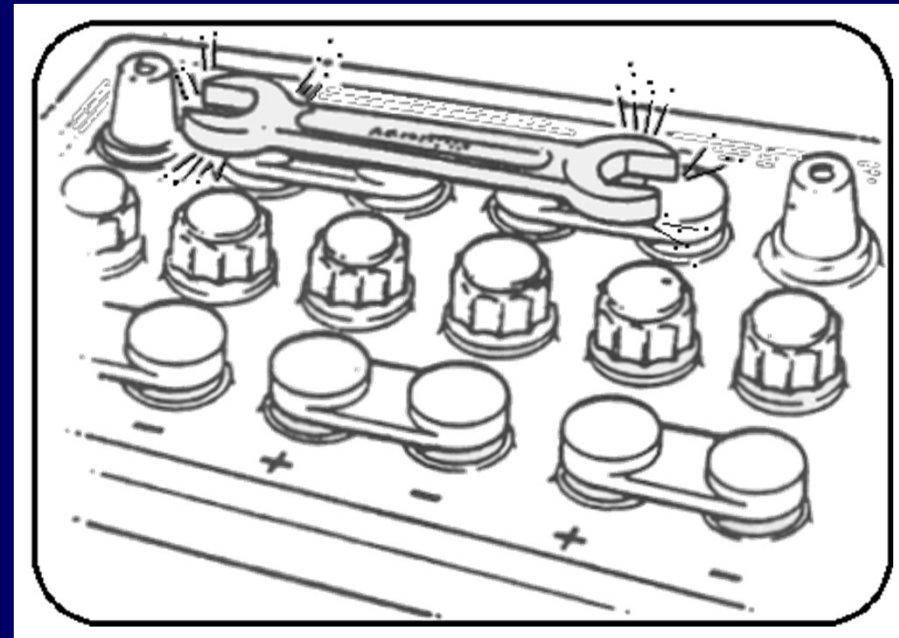
Leads should never be clipped on or off unless the charger is switched off, otherwise a spark may occur to ignite the explosive gasses.



Short circuits

Do not allow any metal objects to short across the battery i.e. a spanner.

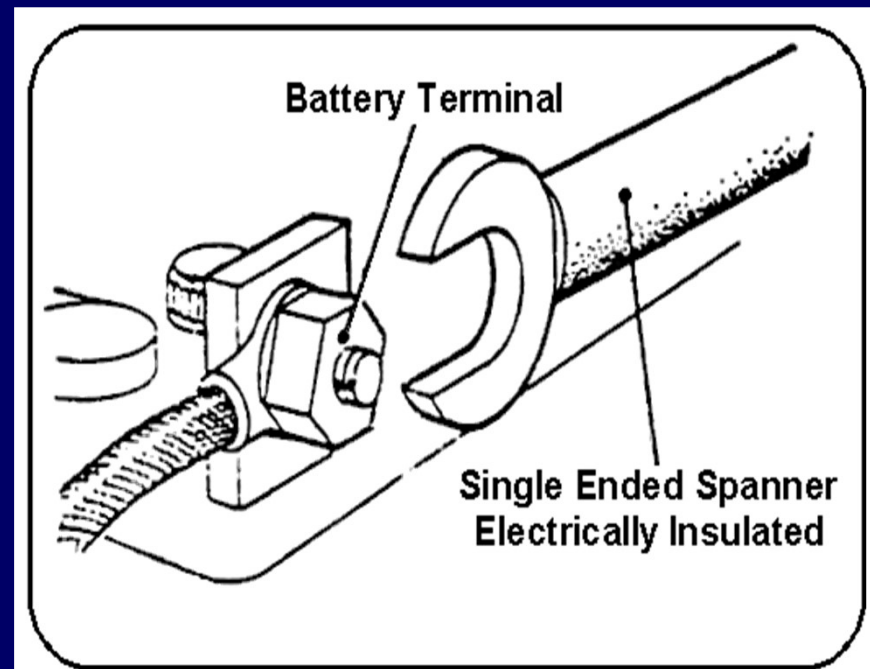
Could cause an explosion & will become sufficiently hot to cause severe burns.



Avoidance of Short circuits

Use special tools or electrically insulated ones in the vicinity of batteries.

Take care if jump starting, check manufacturers data



Correct Disposal

Do not discard dry primary cells in a normal waste bin.

Consult local procedures for correct disposal of Hazardous Waste

