

Shield Batteries HEALTH & SAFETY CODE

<http://www.shieldbatteries.co.uk>

IMPORTANT INFORMATION

If treated with care and the proper precautions, lead acid batteries can be handled safely with a minimum risk. However, batteries contain sulphuric acid which is both poisonous and corrosive. This makes them potentially hazardous and can cause serious injury when standard handling procedures are not respected.

BEFORE WORKING WITH BATTERIES, PLEASE READ THE FOLLOWING GUIDELINES VERY CAREFULLY.

HANDLING PROCEDURES

Always wear acid resistant clothing, goggles, PSV gloves and rubber boots - especially where there is a risk of splashes. Keep batteries upright and only top up cells with distilled water - do not overfill. Always have plenty of water available, in case of acid spillage.

STORAGE PROCEDURES

Keep batteries clean and always store in a cool, dry place. Where acid is stored or handled, good ventilation is also essential. Keep the bungs on containers uppermost at all times.

SPILLAGE PROCEDURES

Wash down smaller spillages immediately from the windward side, wearing full protective clothing. Use plenty of water and direct the jet to the outside of the spillage, working your way inwards to the centre. Larger spillages should be contained with soda ash, sand or earth and finally washed down with water once absorbed.

DISPOSAL PROCEDURES

Once neutralised, the contaminated material should be swept up and taken to a suitable tip, provided by the local authority. Batteries must NEVER be disposed of in household waste.

CHARGING PROCEDURES

Batteries on charge emit highly flammable hydrogen gas. The charger must always be switched off before connecting and disconnecting. Electrolyte levels must also be checked before, during and after charging to ensure that the plates are covered - top up with distilled water if necessary.

CHARGING PROCEDURES (cont...)

Charging must always be done at the recommended rate of no higher than 1/10th of the battery's capacity.

FIRE AND EXPLOSION PROCEDURES

Sulphuric acid in contact with metals generates hydrogen which forms an explosive mixture with the air. If a battery is short circuited, a very high current flows and this can also cause fire through sparks & molten metal.

TO AVOID THESE HAZARDS

Display notices forbidding smoking and naked lights anywhere near lead acid batteries. Remove all loose metallic objects from pockets and jewellery before handling batteries. Always use insulated tools and never leave metal objects near battery terminals. Switch off all chargers before connecting or disconnecting a battery. NEVER attempt to repair a battery.

SULPHURIC ACID

The electrolyte is a diluted form of the pure acid which is a corrosive liquid. Exposure to fine acid mist and its corrosive effects through battery charging in poorly ventilated areas is a key health hazard. Inhalation will cause severe irritation to the lungs and throat and repeated exposure may lead to damage to the lining of the throat in the region of the larynx. Very low concentrations of acid mist generated by charging less than 40 batteries in a well ventilated area should present a low risk to health provided these guidelines are followed.

FIRST AID PROCEDURES

Sulphuric acid is a scheduled poison and in case of accident, immediate steps should be taken.

Splashes in eyes:

Wash out the eye with plenty of water for at least 15 minutes. Use 1% boric saline solution, if available.

Splashes on skin:

Remove contaminated clothing carefully and wash the affected skin areas with plenty of water.

Swallowed:

Drink copious amounts of milk of magnesia, water or milk. Do not induce vomiting.

IN ALL CASES, SEEK MEDICAL ATTENTION IMMEDIATELY