

RISK ASSESSMENT
BATTERIES AND CHARGERS
This Risk Assessment refers only to the charging of a single rechargeable motor vehicle battery either in or outside the vehicle. See HSE guidance leaflet Using Electric Storage Batteries Safely for other applications such as the charging of bulk quantities or electric lift truck batteries.
HAZARD(s)
<ul style="list-style-type: none"> ● Ignition of flammable gases ● Over pressurisation of battery ● Contact with caustic chemicals ● Work with electrical equipment
RISK(s) / CONSEQUENCES
<ul style="list-style-type: none"> ● Fire and Explosion ● Burns to eyes and skin ● Electric shock
CONTROL / SAFETY MEASURES
<ul style="list-style-type: none"> ● During and after charging batteries give off hydrogen, an easily ignited and explosive gas. Connecting or disconnecting batteries or charger connections to battery terminals when batteries are gassing creates incendive sparks. If sparks ignite the hydrogen, batteries may explode spraying those nearby with acidic electrolyte. ● Any person handling battery chemicals or charging batteries should be trained and experienced or under adequate supervision. ● Batteries should be charged in a dedicated, well ventilated area, away from sources of ignition e.g. flames, sparks, electrical equipment, hot objects. ● Wear gloves and suitable eye protection, preferably goggles or visor, and when handling battery chemicals a plastic apron and suitable boots. ● Metal in contact with battery terminals causes heavy short circuit currents leading to arcing and/or rapid heating of the metal in contact. Metal finger and wrist jewelry in contact with battery terminals causes burns and flash injuries and should never be worn when working with batteries. Metallic objects should be prevented from falling across terminals wherever batteries are handled, charged or stored. ● Do not charge batteries at rates in excess of the manufacturer's recommendations and stop charging once it is fully charged. ● Switch off the battery charger before connecting or disconnecting the clips from the charger. If possible connect the clips remote from the battery terminals to, for example, the starter motor. Keep crocodile clips clean and free from corrosion and, except for the contact surfaces, insulated. Clean battery terminals before fixing charging clips. ● If the battery charger transformer is not of the safety isolating type (with an earth screen or windings on separate limbs of the core) one pole of the charging circuit should be earthed - and marked - to prevent a short circuit when the charger is used with a vehicle battery on which a different pole is earthed. ● Wash your hands thoroughly after working with batteries, especially before eating, smoking or going to the toilet. <p>OTHER GUIDANCE:</p> <p>Using Electric Storage Batteries Safely</p>
LEGAL REQUIREMENTS
<ul style="list-style-type: none"> ● Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) - see Fire and Explosion - How Safe is Your Workplace? ● Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres Regulations - see Fire and Explosion - How Safe is Your Workplace? ● Control of Substances Hazardous to Health Regulations (COSHH) - see COSHH: A Brief Guide to the Regulations ● Personal Protective Equipment at Work Regulations (PPE) - see Using Electric Storage Batteries Safely

Is This a Risk?	YES
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Is there site specific information, to add to the Risk Assessment?	YES
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ADDITIONAL SITE SPECIFIC RISK ASSESSMENT INFORMATION:

ADDITIONAL HAZARD(S)

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ADDITIONAL CONTROL / SAFETY MEASURES IDENTIFIED

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RISK QUESTIONS

Have you introduced and implemented these control / safety measures?	YES
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Have all persons involved been shown and read the risk assessment and have they been adequately trained?	YES
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Has an evaluation of PPE required been completed for this risk and appropriate action taken?	YES
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Have employee records for training and PPE provision been updated to support the above?	YES
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