



PACKAGING STANDARD FOR USED LEAD ACID BATTERIES (ULABs)

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1. INTRODUCTION

Meeting the standard set out below will ensure acceptance by the carrier and the used lead acid battery (ULAB) recycling facility and avoid the inconvenience and cost of consignments being rejected. Consignments could be rejected by the carrier at the point of pick up or by the ULAB recycling facility staff at the point of delivery. Rejected consignments will be returned to the supplier at their expense or remediated at the supplier's expense.

2. AUTOMOTIVE BATTERIES

- Automotive batteries must be separated into similar sizes.
- All batteries forming the perimeter of each layer must be of similar height. Lower height batteries can be stacked in the inner rows on each layer.
- All batteries must be stacked in an upright orientation so that acid is not spilled.
- Each layer must be separated by a slip sheet of fibre board or heavy duty cardboard. Polystyrene slip sheets are not to be used.
- Remove all battery cables or connections.



- Automotive batteries can be stacked up to a maximum of 3 layers provided a maximum weight of 1500 kg is not exceeded and the stacks remain square.
- Automotive batteries in boxes, crates, or drums will **not** be accepted or unloaded.
- Truck size batteries, often labelled N200, should be stacked on separate pallets where feasible.
- Nickel-cadmium, Aluminium-cadmium, Lithium Ion and Nickel Metal Hydride batteries will not be accepted or unloaded. Any of these battery types packed with lead acid batteries will be sent to a responsible recycler at the cost of the supplier and the cost offset against any value owed to the supplier. Examples of such products are shown in section 9.

3. STANDBY POWER BATTERIES (SEALED)

- Standby power batteries should not be mixed with automotive batteries.
- Standby power batteries should be separated into similar size groups so that they can be stacked evenly across the pallet.
- All batteries forming the perimeter of each layer must be of similar height. Lower height batteries can be stacked in the inner rows on each layer.
- Each layer must be separated by a slip sheet of fibre board or heavy duty cardboard. Polystyrene slip sheets are not to be used. Note - Polystyrene foam creates an environmental hazard and suppliers may incur an environmental disposal levy to cover the costs of any polystyrene received.
- Sealed standby power batteries can be stacked on their sides to assist stacking, if required.
- Small standby power batteries can be stacked up to a maximum of 3 layers provided a maximum weight of 1500kg is not exceeded and stacks remain square.
- Large standby power batteries must only be stacked up to a maximum of 2 layers and a maximum weight of 1500kg must not be exceeded.

4. MOTIVE POWER (FORKLIFT) AND FLOODED STANDBY POWER BATTERIES

- Forklift battery cells and large flooded standby power cells must be stacked on separate pallets in an upright orientation so that acid is not spilled.
- Cells should be separated into similar heights so that the stack height is even and the pallet can accept a top load.



- All cells forming the two outside perimeter rows on the pallet load must be of similar height. Lower height cells may be stacked in the centre.
- Only one layer of cells is to be used on each pallet.
- Pallet weights must not exceed 1500kg.
- Industrial batteries will be accepted in steel cases or trays but only when shipped separately. –
- Industrial Perspex-cased industrial batteries must be stacked on separate pallets. They must not be mixed with Polypropylene-cased batteries.

5. PALLETS

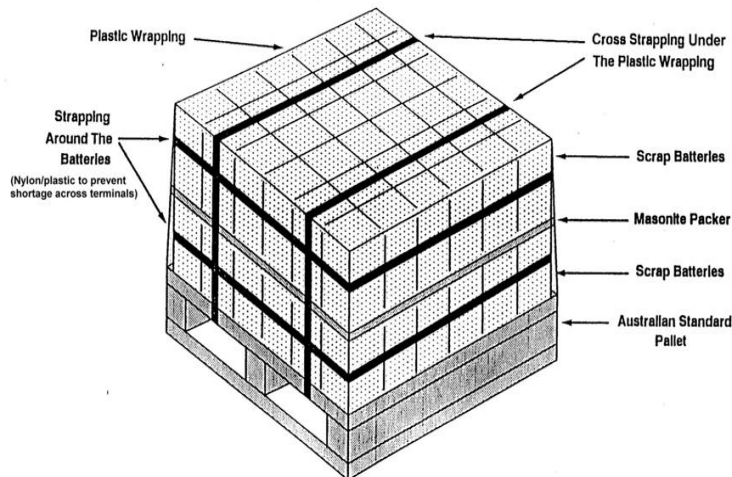
- Pallets must be in good condition and of heavy duty construction.
- Plastic pallets are also accepted but must be in good condition.
- The maximum size of the pallet must not exceed 1200 mm square.
- Pallets that are damaged with broken or missing timbers will not be accepted.

6. PACKAGING AND STRAPPING

- Strapping must be high strength polypropylene, polyester or nylon plastic.
- Steel strapping is **not** acceptable, due to the potential risk of fire from short-circuits
- Automotive batteries must have one horizontal strap around each layer of batteries.
- Standby power batteries must have one horizontal strap around each layer of batteries.
- Forklift and flooded standby power cells must have at least 3 horizontal straps around the stack.
- In addition to the above **all** pallet loads must have at least 2 cross straps tying the load to the pallet.
- In addition to the above **all** pallet loads must be either stretch wrapped or shrink wrapped to the full height of the pallet stack.
- Plastic wrapping alone is **not** acceptable.
- Vertical strapping alone is **not** acceptable.
- ULAB must have all vent caps firmly in place prior to wrapping and strapping, as missing or loose vent caps are the major cause of acid spills during transport.



ULAB Packaging Example



Class 8 label.

7. LABELLING

- All pallets must be labelled with a “Class 8 Corrosive” sticker to comply with Dangerous Goods Regulations.

8. TRANSPORT APPROVAL AND DOCUMENTATION

Australia

- The interstate movement of ULAB **must** be undertaken with appropriate regulatory approval and documentation.
- The supplier **must** obtain an approved Consignment Authorisation issued by the destination state Environmental Protection Authority prior to transportation.
- Waste Transport Certificate documentation **must** accompany the ULAB load in transit and be presented at the receiving facility upon delivery.

New Zealand

- Transporters must ensure compliance to all rules and regulations as set out by the Environment Risk Management Authority, NZ Transport Agency, Maritime New Zealand and the Ministry of Agriculture and Forestry.



9. EXAMPLES OF BATTERIES THAT CAN NOT BE PROCESSED

Ni-Mh Battery



Lithium Ion Laptop Battery



Nickel Metal Hydride Power Tool batteries



Lithium Ion Power Tool Batteries



Nickel Cadmium Battery



Mixed dry cell batteries





10. HOW TO IDENTIFY A LEAD ACID BATTERY



11. FREQUENTLY ASKED QUESTIONS

Q) Why is it so important to pack ULAB to a standard?

A) Under the Chain of Responsibility the Consignor (you) is responsible and you can be held liable for any non-compliance with legislative requirements.

Q) What is Chain of Responsibility?

A) Chain of Responsibility requirements under road transport laws now mean that everyone involved in the road transport supply chain - the consignor, consignee, packer, loader and receiver, as well as the driver and operator - can be held responsible for breaches of road laws and may be legally liable. These parties must take all reasonable steps to prevent their conduct from causing or contributing to a breach. New laws have been introduced to ensure that those who are responsible for conduct, which affects compliance, are accountable for failure to discharge that responsibility (chain of responsibility).



Q) Why should I separate different battery types?

A) To ensure the safe transport of ULAB, batteries should be of similar size by layer with largest and heaviest on the bottom layer. Due to size restrictions on equipment (Battery Breakers) large motive power cells or N200 type automotive batteries may require manual disassembly prior to introduction to the battery breaker. All steel cased batteries must be disassembled prior to introduction to the breaker and any foreign material must be removed from the process prior to material separation.

Q) Why should I use only hardwood or plastic pallets?

A) For the health and safety of facility personnel and to meet Chain of Responsibility obligations the facility will only accept hardwood or plastic pallets. Hardwood and plastic pallets permit the safe storage of ULAB as they can bear the loads associated with ULAB.

Q) Why can't the transport company just be responsible for accepting pallets?

A) The transport company is responsible for accepting pallets (consignments), however the driver cannot see into all pallets nor can they be expected to understand the product content or make up. Therefore, all pallets are subject to final inspection by the ULAB recycling facility staff. They will make the definitive acceptance of all consignments. Under Chain of Responsibility obligations the original consignor cannot pass on its obligations to another party and therefore remains liable for any issues arising from the transport of consignments regardless of acceptance by another party.

Q) Can I use black plastic to wrap ULAB?

A) Yes you can, however black plastic increases your liability as it obviously impedes inspection by the transport driver and facility staff, who will make a judgment based on observation. For example, any liquid on or leaking from the consignment could be deemed as leaking battery acid (electrolyte). To improve the overall compliance with legislation clear plastic wrap is the best option.

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