VALEN
Powering Excellence

RECYCLING BATTERIES GUIDELINE

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Warning

It is imperative that instructions in this document are followed implicitly. Failure to do so could result in death, injury, fire and or explosion. Mixing, for example, lithium and Lead Acid batteries are known to cause an explosion. Also, although the energy is supposedly spent, there is often enough remaining to cause a fire.

RECYCLING BATTERIES GUIDELINE

Please use this guide to assist you when returning Used Lead-acid Batteries (ULABs). The following sections highlight the practicalities of safely implementing the processor's instructions and requirements;

- Plan ahead
- Check you are only packing ULABs
- Put safety first
- Follow ULAB best handling practices
- Prepare your ULAB shipment for transport
- Strap the pallet/ Wrap the pallet/ Label the pallet

Section 1

Plan ahead

You will need to ensure batteries of other chemistries such as Nickel and Lithium-based batteries are not included with your ULAB shipment.
Different battery types have different transport risk classifications.

- Do NOT ship mixed dry cell batteries
- Do NOT ship Lithium batteries with your ULAB shipment.
- Do NOT ship Nickel Cadmium batteries with your ULAB shipment.

Section 2

Prepare your ULAB shipment for transport

Things to know about pallets;

- The maximum size of the pallet should not exceed 1200 mm square.
- Pallets must be in good condition and of heavy-duty construction to support ULABs. (Do NOT use a pallet that is damaged)
- Hardwood or plastic pallets are preferred; however, pine pallets may be suitable.
- It is important to ensure that pallets are loaded in accordance with their specific load limit, this will prevent injuries and battery breakage during loading/unloading.

Section 3

Things to know about stacking ULABs

Stacking ULABs has a big impact on the safety of battery handlers during transit and once they arrive at the recycler. The following can be used to ensure safe and conformant stacking procedures are used;

- Where practical, stack batteries of similar size and shape to prevent movement.
- Stack automotive batteries separately to industrial and forklift batteries to assist in securing the ULABs in transit and assist the processors.
- Ensure ULABs stacked on the outer rows of each layer are of similar height. This will form a solid base for the batteries.
- Ensure ULABs are in an upright position, this will prevent acid spills and avoid a short circuit.
- To prevent short circuits and to distribute weight, place a separator, such as heavy-duty cardboard between each layer of batteries.

- Battery terminals must not support the weight of other batteries. Separators must be of a depth greater than the height of the terminal to ensure that terminals are not weight-bearing.
- Only stack 2 layers of ULABs high to prevent damage during transit. Some processors may allow stacking of up to 3 layers, provided they are on hardwood pallets and they do not exceed the pallet weight rating.
- A pallet of automotive batteries must never exceed 1500Kgs.
- ULABs must have all vent caps firmly in place, loose vent caps are the major cause of acid spills during transport.

Section 4

Wrap the pallet

- All pallets of ULAB must be either stretch wrapped or shrink-wrapped in plastic to the full height of the pallet stack.
- Make sure clear plastic wrap is used, as it facilitates identification of the ULAB by the processor and by authorities in the event of an incident or accident. (Black plastic wrap is NOT preferred by processors).
- Plastic alone is not acceptable.

Section 5

Strap the pallet

Effective strapping is also essential for safe transport and handling;

- Strapping must be high strength polypropylene, polyester or nylon plastic.
- Preferred strapping is 19mm wide with a combined break strength of 1500kg.
- Strapping must be tight enough to prevent battery movement in transit.
- Friction welding is preferred.
- Steel strapping is not acceptable, due to the potential risk of fire from short circuits.
- Automotive and industrial 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 load.
- In addition to the above, all pallets' loads must have at least 2 cross straps tying the load to the pallet.
- Vertical strapping alone is not acceptable.

Section 6

Label your parcel

Packages of batteries are required to be labelled on the front and rear in accordance with the Global Harmonized System which is used for workplace safety. This label will need to include the weight of the batteries.

Section 7

Label your parcel

Once a package is loaded onto the vehicle it must be labelled with a Class 8 sticker that complies with dangerous goods regulations in accordance with the following;

- The sticker must have a minimum size of 100 X 100mm with a minimum lettering size of 7mm.
- All Recycling containers must be labelled with the correct shipping name, including;
    1. Batteries wet filled with acid.
    2. UN number: UN2800
    3. Name and address in Australia of the consigner.
    4. Ensure the label is placed on at least two opposing sides.
    5. Ensure that the label is visible to incoming trucks and emergency services.

Valen will not be accepting more than 4 tones per shipment unless agreed upon by Valen.