

# Packaging Lead-Acid Batteries for Bulk Transports

## Health & Safety



**Wear personal protective equipment<sup>1</sup>**



**Avoid damages to batteries<sup>2</sup>**



**Change clothes after work**



**Maintain high personal hygiene standards**



**Step 1**  
Apply caps or isolation tape to the positive poles (+) of all batteries



**Step 2**  
Close any holes with plastic or rubber material



**Step 3**  
Pack damaged batteries in heavy weight poly-ethylene plastic bags



**Step 4**  
Choose strong and intact pallets for transport<sup>3</sup>



**Step 5**  
Place a layer of card-board between every battery layer (also on the pallet)



**Step 6**  
Stack all batteries upright and avoid poles getting in contact



**Step 7**  
Make sure that all batteries are placed within the horizontal limits of the pallet



**Step 8**  
Do not stack higher than 3 layers, place max. 1,000 kg on pallet, place damaged batteries in top layer



**Step 9**  
Cover the top layer with card-board and wrap with shrink wrap as many times as necessary to stabilize the load



**Step 10**  
Mark each pallet with the following warning labels: ① Package orientation ② Hazard label: Class 8, Corrosives ③ UN 2794: BATTERIES, WET, FILLED WITH ACID ④ Overpack



**Step 11**  
Load the stacks into a container in a way that pallets are protected from sliding<sup>4</sup>  
Only load one layer of stacked pallets and avoid overloading<sup>5</sup>



**Step 12**  
Mark container on all 4 sides with the following labels: ① Hazard label: Class 8, Corrosives ② UN 2794: BATTERIES, WET, FILLED WITH ACID

Further information: [www.resourcefever.org](http://www.resourcefever.org)

1 Overall, safety boots, work gloves, dust mask, protective goggles  
2 Handle with care, do not drop or throw batteries, keep upright at all times  
3 Use only intact pallets with a minimum of 3 bottom boards. Best pallet size for loading in 40 ft sea container = 1,100 x 1,140 mm  
4 Either by choosing transport-pallets that leave no spacing when placed in a container (see picture) or by inserting wooden bars between pallets to avoid unintended movement  
5 40 ft containers should not be loaded with more than 26.48 metric tons of freight