

## DEEP FROZEN PRODUCTS

# Container pre-conditioning – Dry Ice

## Using dry ice

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- Precondition the product, pallet and packing material at least one week prior to cargo loading.
- Put 16 fresh, new Alkaline D-cell batteries in the battery holder.
- Check the battery voltage.
- Set container to desired temperature.
- Ensure container is preconditioned to the required cargo temperature.
- Place dry ice inside the cargo hold on a pallet to achieve deep frozen temperatures (e.g., -10°C) for 1–2 hours.
- Close the container doors and wait at least one hour before loading the cargo.

## Container loading

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### When the container is preconditioned with dry ice

- Open doors to the cargo space and minimize the time container doors are open during cargo loading.
- Remove the pallet with dry ice used for preconditioning.
- Ensure container has been preconditioned to the required cargo temperature.
- Load the cargo on a pallet and place 80% of the unwrapped dry ice by:
  - Placing dry ice in boxes on top of cargo; or
  - Evenly placing dry ice on top of cargo and using plastic wrap to create a ridge or barrier at the cargo edges to prevent the dry ice from sliding off.
- Secure the cargo using the container's tie down brackets.
- Close and lock the container doors.
- Load the remaining 20% of unwrapped dry ice in the container bunker.
- Allow up to one hour for the container temperature to stabilize around the set temperature.

## Scheduled shipment re-icing

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- Remove existing dry ice from the bunker and replenish with pre-determined amount of dry ice based on recommended dry ice calculation.
- Use unwrapped dry ice sheets for loading into the dry ice bunker.

## Unscheduled shipment re-icing

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- For unscheduled shipment delays (at destination), add pre-determined amount of unwrapped dry ice (recommended in dry ice calculation) per 24 hour delay into the bunker.

## Batteries

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- Change the batteries every 24 hours.
- Change batteries when they reach 9 volts or less.