



BEST PRACTICE FOR ULTRA LOW TEMPERATURE (ULT) FREEZERS



Proper freezer management is important to ensure efficient performance, minimise operating costs and reduce the potential for freezer failure.

HERE ARE SOME TOP MANAGEMENT TIPS TO REDUCE STRESS ON YOUR ULT, EXTEND ITS OPERATING LIFE AND KEEP YOUR SAMPLES SAFE:



Keep them organised

- Label all stored materials with details of contents, expiry and ownership
- Keep an inventory that logs sample location to minimise door opening frequency and duration
- Ensure efficient storage via use of racking systems and appropriate containers where possible, as non-uniformly shaped items waste space
- Have regular clear-outs to remove unneeded samples and reduce the need for additional cold storage



Control frost & ice buildup

- Regularly brush off frost to prevent the formation of ice from compromising freezer efficiency and obstructing the door seal
- Inspect door gaskets to check for any frost/ice build-up, tears or detachment from the freezer
- Do not de-ice gaskets using sharp objects that can puncture or dislodge them
- Keep the pressure equalization port clear of ice (this is the valve that allows the vacuum to be released)
- Organise a defrosting schedule for your ULT (once a year is recommended)



Let them breathe

- Unrestricted airflow is critical for proper operation of ULT freezers, so allow for space around the units and don't stack boxes on top of them
- Vacuum filters or wash them with mild soap and let them air dry
- Gently vacuum or brush condenser coils in the direction of the lines on the coil to remove dust

DID YOU KNOW? An easy way to save energy and reduce a lab's carbon footprint is to raise ULT temperature to the highest feasible temperature for effective sample preservation



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