Min/Max Thermometer Information Sheet

SafetyNet #: 103

Proper placement of thermometers in animal facilities is important to obtain accurate measurements and avoid mercury spills from thermometers containing mercury. Below are guidelines for mounting, storage and use of min/max thermometers.

Acceptable Mounting Locations

On the wall:

- Opposite supply vent(s),
- Where it will not be hit by a cage rack,
- In a location where it can be easily read,
- Eye level (approximately 4’ - 5’ above floor).

On the door if secured properly and protected from damage.

Thermometer storage and safety

Store thermometers upright to avoid separation of liquid within the tubes. Protect thermometers from impact and damage. If you still are using mercury filled thermometers, make sure all personnel are properly trained in responding to a mercury spill. Units are encouraged to replace mercury column thermometers with thermometers containing non-mercury based materials.

Correcting Separation of Liquid in the Columns

Occasionally a thermometer arrives with a separation of the liquid in the columns due to rough handling in transit.

Since the liquid in the “u” shaped tubing is allowed to slide back and forth to record high and low temperatures, firmly grasp the thermometer at the top of the case with the bottom of the "u" extending towards the floor. Lift the thermometer overhead, and then swiftly swing it downward. The downward swing consolidates the liquid in both sides of the tube.

If swinging the thermometer downward does not consolidate the liquid, put the thermometer under warm water with the bottom of the “u” extending into the water to press the air bubbles upward, thus allowing them to escape above the columns of liquid.
Resetting the Minimum/Maximum Set Points
If there is a reset button, push the button to reset the min/max markers on the top of the liquid columns in each tube arm.
For mercury column thermometers: If there is no reset button and a magnet is included with the thermometer, use the small magnet to reset the min/max markers on the top of the liquid columns in each tube arm.

Documentation and Record Retention
Each animal unit should establish their own standard operating procedures (SOPs) for monitoring and recording daily temperatures and/or ranges.
Using the Institute for Laboratory Animal Research (ILAR) guidelines, each animal unit should establish acceptable temperature ranges for each species and a procedure to alert staff to temperature problems within the facility.

Mercury Spill Cleanup
- Spill procedures should be posted or readily available.
- Personnel should be trained in spill procedures.
- Refer to EH&S SafetyNet #16 [1], “Guidelines for Mercury Spill Control” for more information.

Disposal of Thermometers
Double bag all pieces, label as hazardous waste, dispose as hazardous waste through EH&S. See SafetyNet #8 [2], “Guidelines for Disposal of Chemical Waste” for more information.

Related content
1. Guidelines for Mercury Spill Control
2. Chemical Waste Disposal Guidelines

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