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(57) Abstract :

The invention discloses a multi-compartment lab safety beaker (10) equipped with compartments (16), thermal sensors (12), and chemical spill sensors (14) for real-time monitoring of laboratory hazards. A control module (20) connected to an alert system (18) provides visual and audible warnings, while a detachable safety lid (22) with locking mechanism (34) ensures secure operation. The system includes wireless connectivity (44) for data logging and an optional temperature-controlled base (54), enhancing safety, traceability, and efficiency in chemical experiments.

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