

Appendix L: Biosafety Cabinet Summary Chart

The summary chart below compares the different biological safety cabinet types for performance characteristics and applications of use. Biological safety cabinets are among the most effective and most common primary containment devices used in laboratories with biohazardous material.

Type	Face velocity (lfpm)	Airflow Pattern	Radionuclides/ Toxic Chemicals	Biosafety Level(s)	Product Protection
Class I* open front	75	In at front; rear and top through HEPA filter	No	1,2	No
Class II Type A1	75	70% recirculated through HEPA; exhaust through HEPA	No	1,2,3	Yes
Class II Type A2	100	Same as Class II Type A1, HEPA filtered, plus can be exhausted to outside (canopy connection)	No if not ducted. If ducted, minimal quantities.	1,2,3	Yes
Class II Type B1	100	30% recirculated through HEPA; exhaust via HEPA and hard ducted	Yes (Low levels/volatility)	1,2,3	Yes
Class II Type B2	100	No recirculation; total exhaust via HEPA and hard ducted	Yes	1,2,3	Yes
Class III	NA	Supply air inlets and exhaust through 2 HEPA filters	Yes	1,2,3,4	Yes

* Glove panels may be added and will increase face velocity to 150 lfpm; gloves may be added with an inlet air pressure release that will allow work with chemicals/radionuclides.