

## GL308 - Ventilation in chemical stores and prep rooms a summary

The following is a summary of what is required in terms of ventilation in chemical stores and prep rooms. For more information see the below CLEAPSS guidance and for further guidance read BB101: *Ventilation, thermal comfort and indoor air quality 2018* from The Education and Skills Funding Agency (DfE).

### CLEAPSS related documents:

- Bulletin 147 - Summer 2013
- PS015 - Ventilation and levels of carbon dioxide and other gases in the laboratory and prep room
- G014 - Designing and Planning Laboratories
- Handbook - Section 7 - Chemical Safety
- G9 – Fume Cupboards in Schools

### BB101 section 2.3 School Premises and Workplace Regulations

*The Workplace (Health, Safety and Welfare) Regulations, 2013 apply to schools and cover a wide range of basic health, safety and welfare issues including both ventilation and temperature. The Approved Code of Practice (ACoP), L24, 2013 gives guidance on the application of the Regulations. Regulation 6 – Ventilation states:*

**“(1) Effective and suitable provision shall be made to ensure that every enclosed workplace is ventilated by a sufficient quantity of fresh or purified air.”**

### BB101 section 5.7.4 Preparation rooms

*In chemistry preparation rooms, ventilation at the minimum exhaust rate should be continuous during normal working hours, with an override function for use out of these hours. Additional make-up air is required when a ducted fume cupboard is switched on.*

### BB101 section 5.7.5 Chemical stores

*Chemicals used in science should be stored in dedicated chemical storerooms. Continuous extract ventilation should be provided 24 hours a day with make-up air at low level and extraction at high level. See table 5-2:*

Table 5-2 Minimum exhaust rates for science and practical spaces

Room type	Area (m <sup>2</sup> )	Minimum required ventilation rate
Laboratories and preparation room	>70	4 l/s/m <sup>2</sup>
Laboratories and preparation room	37-70	11.42 – (0.106 x Area) l/s/m <sup>2</sup> [note that this is equal to flow rate for the room of 278 l/s]
Laboratories and preparation room	<37	7.5 l/s/m <sup>2</sup>
Chemistry store room	All	2 air changes per hour, 24 hours a day.
Art classroom	All	2.5 l/s/m <sup>2</sup>
Metal/wood workshop/classroom; Rooms with 3D printers; laser cutters; and spray booths for spray glue or spray paint aerosols	All	2.5 l/s/m <sup>2</sup>

