# Supporting practical science, D&T and art

- in schools and colleges

## Sanitising eye protection

#### **Protocol**

- On leaving the lab at the end of the lesson, pupils place used eye protection in bowl(s) of soapy water. Eye protection will need to be fully immersed in the water so provide enough bowls to ensure they don't get over filled (several smaller bowls are also easier to move than one large container). Household washing up detergent diluted as for "washing up" is fine for this.
- Transfer bowls to the prep room and, with mechanical action such as using hands, gently agitate the eye protection in the soapy water to clean.
- Drain off soapy water and rinse eye protection with tap water.
- Using an appropriately size lidded container, immerse eye protection in sterilising solution which has been made to 10x the manufacturer's recommended strength for sterilising baby feeding utensils. Wear eye protection and disposable gloves and work in a well ventilated prep room when preparing and using the solution. To minimise manual handling, site the container near a sink so it can be easily filled with water/emptied of solution.

Tip: approx. 15L of solution is needed to immerse 30 x bulkier safety glasses ie those sold for wearing over spectacles, in a 24L plastic stackable storage box (approx. 350x260x250mm).

See table over the page for information on a range of solutions prepared at CLEAPSS.

• Place a lid on the container and keep eye protection immersed in solution for the amount of time specified by manufacturer.

Tip: Try and keep immersion time to the minimum specified, as trials at CLEAPSS have found that some eye protection can deteriorate after repeated, prolonged immersion in sterilising solution eg scratched glasses/goggles can become "foggy", metal screws may start to rust, housings around the lens in some low cost goggles can lose their rigidity.

- Remove eye protection from sterilising solution and rinse thoroughly with tap water.
- Shake off excess water and leave eye protection to dry in a clean place. Do NOT dry with paper towels or similar as it risks scratching the eye protection.

Tip: use a cleaning cloth, suitable for use with eyeglasses, to buff up any glasses which may have become water marked. Ensure cloths are used solely for this purpose.

- Check items for damage and discard any where damage will prevent effective use eg those which don't provide the user with clear visibility or goggles where the elastic strap has perished significantly.
- Store the eye protection in a way that avoids the risk of contamination before it is next used.
- Repeat for further batches of eye protection, replacing the sterilising solution as directed by the manufacturer (see guidance on the next page).

### **Comparison of sterilising solutions prepared at CLEAPSS**

Manufacturers' information				Eye protection sterilising solution prepared at CLEAPSS			
Product name	Dosage for baby feeding utensils	Minimum contact time (mins)	Recommended life of made up solution	Amount of product added to 15L of water	Cost of product (£)	Cost for approx.  15L of sterilising solution (£)	*Solution effective for 24hrs
Asda "Little Angels" sterilising tablets	1 tablet to 4 pints water	15	24hr	65 tablets	0.75 for 56 tablets	0.87	<b>√</b>
Milton sterilising tablets	1 tablet to 5L water	15	24hr	30 tablets	2.00 for 40 tablets	1.50	✓
Tesco "Fred & Flo" sterilising tablets	1 tablet to 4 pints water	15	"make fresh every day"	65 tablets	0.75 for 56 tablets	0.87	✓
Dr Johnson's sterilising fluid	50ml to 4 pints water	30	"make fresh every day"	3.3L	2.49 for 1L	8.22	✓
Milton disinfecting liquid professional	1/160 dilution	15	24hr	900ml	15.95 for 5L	2.87	<b>✓</b>
Milton sterilising fluid	30ml to 5L water	15	24hr	900ml	2.35 for 0.5L	4.23	<b>✓</b>
Sainsbury's "Little Ones" Sterilising liquid	15ml to 4.5l water	30	not stated	500ml	1.00 for 0.5L	1.00	<b>√</b>

<sup>\*</sup> Solution titrated against sodium thiosulfate solution to check it contains >1000ppm avCl (Freely Available Chlorine), see Handbook section 7 and look out for our practical procedure PP090 on determining the concentration of a sodium hypochlorite solution by volumetric analysis.