

T4 bacteriophage information sheet

Provided as required by Article 10 of European Union Directive 90/379/EEC

Preparation and storage On arrival, store the tube of bacteriophage preparation in a freezer at -18 to -20°C . The preparation contains glycerol to help stabilise the 'phage during storage. The preparation may be stored in this way for up to 12 months.

The host for the T4 bacteriophage is an *E. coli* 'B' strain. Before inoculation with the 'phage, the *E. coli* should be grown in nutrient or LB broth for approximately 24 hours at 30°C . $100\ \mu\text{L}$ (approximately two drops) of the 'phage preparation should be used to inoculate each 10 mL of actively-growing bacterial culture.

If you wish to prepare 'phage for later use, inoculate an *E. coli* culture as above then incubate at 30°C . After 24 hours, spin down the cells from the culture (e.g., using an NCBE microcentrifuge) then aliquot the supernatant into sterile tubes. These can be stored frozen at -18 to -20°C until required. *Note: if you intend to store the 'phage preparation for more than a few weeks, it is advisable to add an equal volume of glycerol to the supernatant before freezing it.*

Handling Good microbiological laboratory practice should be followed when using the bacteriophage and associated *E. coli* B strain. The 'phage and bacterial culture should be used only by those competent in microbiological techniques and in a laboratory suitable for **Hazard Group 1** organisms, that is, *ACDP Containment Level 1*. See: *Topics in Safety* (Association for Science Education, 2001).

Disposal After use, autoclave all cultures that are no longer required.

Spillage If the culture is accidentally spilt or the container is broken, cover the contaminated area with a suitable disinfectant such as *Virkon*[®]. Use a microbial spillage kit to collect the disinfected debris.

First aid In the event of skin contamination, wash with antimicrobial soap and warm water. Seek medical advice if the skin is broken or ingestion or inhalation of the culture has occurred.

Reference For detailed safety guidance, please refer to *Topic 15, Microbiology and Biotechnology*, in: *Topics in Safety* (2001) Third edition. Association for Science Education. ISBN: 0 86357 3169.

Further advice

NCBE	University of Reading, 2 Earley Gate, Whiteknights Road, Reading, RG6 6AU. www.ncbe.reading.ac.uk
MS	Microbiology Society, Charles Darwin House, 12 Roger Street, London, WC1N 2JU. www.microbiologyonline.org.uk
CLEAPSS	The Gardiner Building, Brunel Science Park, Kingston Lane, Uxbridge, UB8 3PQ. www.cleapss.org.uk
SSERC	2 Pitreavie Court, South Pitreavie Business Park, Dunfermline, Fife, KY11 8UB. www.sserc.org.uk