REFERENCE INFORMATION

Further details about the risks, treatment and management of hot and cold water systems are available from the following publications.

Legionnaires' disease. The control of legionella bacteria in water systems. Approved Code of Practice and Guidance. HSE Books 2000 ISBN 0 7176 1772 6.

Health and Safety Executive/Local Authorities Enforcement Liaison Committee (HELA) Local Authority Circular (OC 255/11).

Legionnaires' Disease - A Guide for Employers. HSE Books 2001 Leaflet IACL27(rev2) single copy free.

Legionnaires' Disease - essential information for providers of residential accommodation. HSE Books 1997 single copy free.

Free leaflets may be downloaded from the HSE's website: www.hse.gov.uk/legionnaires.

This leaflet has been compiled using the reference documents above, but should only be used as part of a full risk assessment and prevention/ control strategy.

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LEGIONNAIRES' PREMIUM THERMOMETER KIT

Product Code: 860-860

WHAT IS LEGIONELLA & LEGIONNAIRES' DISEASE?

Legionella are bacteria that are common in rivers and lakes and also artificial water systems. Legionnaires' disease is a potentially fatal form of pneumonia, that is caused by the legionella bacteria.
Legionella acquired its name after a July 1976 outbreak among people attending a convention of the American Legion in Philadelphia. The mystery disease sickened 221 persons, causing 34 deaths.
In August 2002, seven members of the public died and 180 people suffered ill health as a result of an outbreak of legionella at a council-owned arts and leisure facility in the town centre of Barrow-in-Furness, Cumbria.

MAJOR RISK AREAS

Legionella, like many bacteria, thrive at certain water temperatures and therefore a wide range of workplaces are at risk where artificial water systems exist. In particular, residential accommodation that is managed privately or by organisations, e.g. local authorities, large businesses, universities, hospitals, nursing and care homes, schools, children's nurseries, housing associations, charities, hostels, landlords in the private renting sector, managing agents, hoteliers, guest houses and caravan and camping site owners. In fact, anywhere where water is stored and circulated around a building.

HOW IS IT CAUGHT & WHO IS AT RISK?

Legionnaires' disease is caught by inhaling small droplets of water suspended in the air which contain the legionella bacteria. It cannot be passed from one person to another.
Everyone is potentially susceptible to infection. However, those most at risk are people over 45, smokers and heavy drinkers, diabetics and people who are already ill, particularly with chronic diseases or whose immune system is impaired.

WHERE ARE THE SOURCES OF LEGIONELLA FOUND?

The legionella bacteria are common in natural water courses, mainly in stagnant water, but can therefore contaminate and grow in artificial water systems found in buildings containing cooling towers, evaporation condensers, air conditioning and industrial cooling systems, humidifiers, spa baths and hot and cold water systems.

TEMPERATURE CONTROL OF LEGIONELLA IN WATER

Incorrect water temperature is a key risk factor for legionella growth. The legionella bacteria multiply in water at temperatures between 20 to 45 °C, particularly if a supply of nutrients is present, such as scale, rust, sludge or algae. A typical method of control is to store cold water below 20 °C. Hot water should be stored above 60 °C and distributed at above 50 °C (care must be taken to prevent scalding - see the Local Authority Circular of the Health and Safety Executive/Local Authorities Enforcement Liaison Committee (HELA) LAC Number: 79/5 Social Care/Scalding Risks).

OTHER WATER TREATMENT METHODS

These include the use of biocides, ultra violet (UV) irradiation, copper/silver ionisation, ozone and chlorine dioxide. Information about these methods is available from the Health and Safety Executive (HSE).

ASSESSING THE RISK & YOUR NEW LEGAL RESPONSIBILITIES

If you are the employer or person in control of premises, you must organise a risk assessment.
The revised Approved Code of Practice (ACOP) issued by the Government's Health and Safety Executive (HSE) significantly extends the scope of its guidance on control of legionella bacteria in water.
The code now applies to all hot and cold water systems in the workplace regardless of their capacity, i.e. the lower limit of 300 litres previously used to exclude domestic systems no longer applies. Whilst domestic systems may represent a risk, the code only applies to risk arising from a work activity.
This means that all employers who manage premises with hot/cold water systems and/or a wet cooling system have a legal responsibility to identify any risk of contamination and to prevent or control it.

HOW TO USE THE THERMOMETER KIT

The thermometer and various probes may be used to monitor the temperature of both standing water and the surface of pipes and tanks that form part of the water system.
The immersion probe should be placed in the water to a minimum depth of 25 mm; the ribbon surface probe may be used to take the temperature of pipes and tanks, and the wire probe can be used to reach awkward places or where the other probes are not appropriate.

The 860-860 ETI Legionnaires' Premium Thermometer Kit contains:

1 x 221-041	Therma 1 Thermometer
1 x 123-160	Penetration probe - type K
1 x 123-030	Precision ribbon surface probe - type K
1 x 133-362	PTFE exposed junction wire probe - type K
1 x 836-301	Micro tub of 35 Probe Wipes
1 x 834-150	ABS carrying case
1 x 806-150	Water resistant countdown timer

*Please note that temperature control is only a part of the treatment of legionella bacteria.