

16 October 2023

Division for Laboratory Investigation and Analysis  
 Unit for Microbiology

## Reference materials for analyses of drinking water and food

### Description and storage

Instructions for the reference materials are available on our webpage ([www.livsmedelsverket.se/en/RM-micro](http://www.livsmedelsverket.se/en/RM-micro)). The instructions include tables with the concentrations of the microorganisms, and tolerance intervals, within which a single result should be found.

*Storage prior to delivery:* All vials are kept in the dark at –55 °C.

*Storage after delivery:* Keep the vials in the dark at –18 °C or lower. (But not lower than –55 °C).

*Table 1. Reference materials (RM) for drinking water analyses*

Reference material	Content	Suitable analyses
Dw 2023:A	<i>Escherichia coli</i> <i>Citrobacter freundii</i> <i>Clostridium perfringens</i> <i>Pseudomonas aeruginosa</i> <i>Enterococcus faecalis</i>	Coliform bacteria <i>Escherichia coli</i> <i>Clostridium perfringens</i> <i>Pseudomonas aeruginosa</i> Intestinal enterococci Culturable microorganisms
Dw 2023:B	<i>Cladosporium cladosporioides</i> <i>Saccharomyces cerevisiae</i> <i>Streptomyces sp. (griseus group)</i>	Micro fungi – moulds Micro fungi – yeasts Actinomycetes
Dw 2023:C	<i>Sphingomonas sp.</i>	Slow-growing bacteria 22 °C, 7 days

Table 2. Reference materials (RM) for food analyses

Reference material	Content	Suitable analyses
Food 2023:12	<i>Kocuria rhizophila</i> <i>Klebsiella oxytoca</i> <i>Escherichia coli</i> <i>Bacillus cereus</i> <i>Clostridium perfringens</i> <i>Staphylococcus aureus</i> <i>Enterococcus faecalis</i> <i>Candida sp.</i>	Aerobic microorganisms Contaminating microorganisms Lactic acid bacteria Coliform bacteria, 37 °C Coliform bacteria, 44 °C Enterobacteriaceae <i>Escherichia coli</i> Anaerobic sulphite-reducing bacteria <i>Clostridium perfringens</i> Coagulase-positive staphylococci Enterococci Presumptive <i>Bacillus cereus</i> Yeasts
Food 2023:7	<i>Rhizopus stolonifer</i> <i>Penicillium verrucosum</i> <i>Cladosporium cladosporioides</i> <i>Kluyveromyces marxianus</i>	Moulds and yeasts
Food 2021:8	<i>Saccharomyces cerevisiae</i> <i>Penicillium roqueforti</i> <i>Cladosporium cladosporioides</i>	Moulds and yeasts
Food 2023:P-CS	<i>Campylobacter jejuni</i> <i>Salmonella Enteritidis</i> Background flora	Thermotolerant <i>Campylobacter</i> <i>Salmonella</i>
Food 2023:P-LE	<i>Listeria monocytogenes</i> <i>E. coli O157 (VT-negative)</i> Background flora	<i>Listeria monocytogenes</i> <i>E. coli O157</i>