

Reference Material Datasheet

Version:	1.0
Issue date:	2025-08-01
Designation:	RM Food 2025:8
Batch no:	406
Date of production:	2024-06-26
Manufacturer:	Swedish Food Agency, Sweden
Storage:	−18 °C or lower (but not lower than −55 °C)
Batch expiry date:	2026-12-31

Manufacturer and contact information

Swedish Food Agency	
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Intended use

This reference material is designed for internal quality control of analytical work at food microbiology laboratories. After reconstitution, the test material can be used for control of quantitative food microbiology analyses, as well as for direct or indirect quality control of microbiological media.

Content

Table 1. Microorganisms included in RM Food 2025:8

Microorganism	Strain*
<i>Penicillium roqueforti</i>	SLV-510
<i>Cladosporium cladosporioides</i>	SLV-488
<i>Saccharomyces cerevisiae</i>	SLV-375

* Internal strain identification number, Swedish Food Agency

Quality control

The reference material has been tested for homogeneity at the Swedish Food Agency. No statistically relevant difference has been observed between vials.

Property values

Table 2. Quality control of RM Food 2025:8. The results are from analysis of 10 individual vials, and are valid for a reconstitution volume of 104 ml. All values are expressed in \log_{10} cfu ml⁻¹.

Analysis	x_{RM}	s_{RM}	u_{RM}	Acceptance limits	Method
Yeasts	3.12	0.13	0.38	2.35 – 3.88	NMKL 98:2005 (DG18, 7 days at 25 °C)
Moulds	3.22	0.06	0.36	2.50 – 3.94	NMKL 98:2005 (DG18, 7 days at 25 °C)

x_{RM} : Property value, to be used for start-up control chart.

s_{RM} : Standard deviation of the property value, can be used for start-up control chart.

u_{RM} : Standard uncertainty of the property value (includes uncertainty contributions from characterisation, homogeneity, transportation and method differences).

The lower/upper acceptance limits are calculated as: $x_{RM} \pm 2 * u_{RM}$ (expanded uncertainty at a 95 % confidence interval, with $k = 2$)

Commutability

The values in Table 2 are calculated with and apply for the respective methods specified. They are in general applicable to other similar methods, but results may differ from those determined during the quality control at the Swedish Food Agency.

The standard uncertainties (u_{RM}) of the property values include uncertainty contributions from method differences (s_R), which are calculated from historical distributions of results from different methods on PT samples with a similar composition. The standard uncertainties and acceptance limits can thus in most cases be considered applicable for comparable microbiological methods.

Traceability

Homogeneity, property values, standard deviations and control limits are calculated in accordance with ISO 17034 and ISO Guide 35. All values are metrologically traceable to the respective strains in the Swedish Food Agency's internal culture collection (Table 1).

Preparation of simulated food sample

Reconstitute the vial content according to the instructions on the last page.

Please note that the final 104 ml corresponds to the undiluted sample to be analysed.

The Swedish Food Agency uses peptone water (0.1 %) with NaCl (0.85 %) as diluent. Laboratories are however advised to use the same diluent as they normally use for the analysis of yeasts and moulds.

Analyses

The analyses should be performed in accordance with the methods used by the individual laboratory.

Control charts

Instructions for the construction of control charts are available at our website:

www.livsmedelsverket.se/RM-micro

File number: Dnr 2025/02935

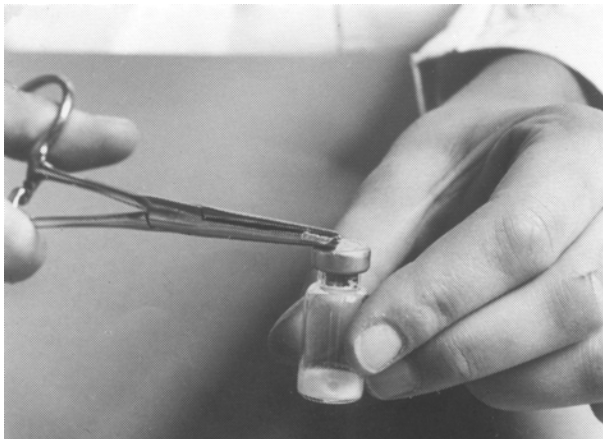
Approved by

Jonas Ilbäck

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RM Production Coordinator

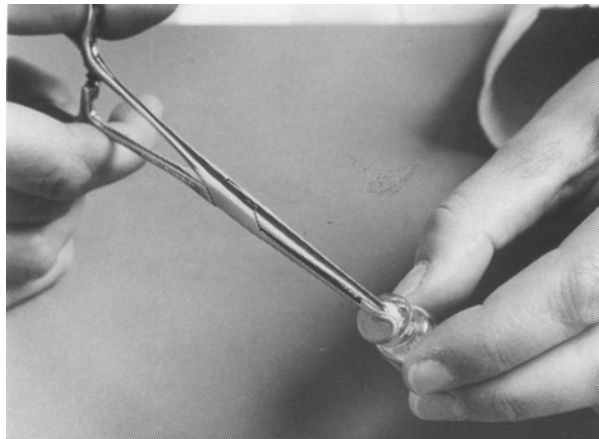
Sample preparation of freeze-dried cultures in glass vial (RM Food)



1. Twist the flap on the aluminium cap in the direction of the arrow.
2. Remove the aluminium cap.



5. Add 1 ml diluent with a sterile pipette.
6. Let the content dissolve (1-5 minutes).
7. Using a sterile Pasteur pipette, transfer the suspension to a sterile bottle containing 100 ml room temperature diluent.
8. Add another 1 ml and carefully rinse the walls of the vial with the Pasteur pipette.



3. Remove the rubber plug.
4. Carefully burn the opening of the vial over a gas flame.



9. Transfer the suspension to the bottle containing 100 ml diluent.
10. Repeat steps 8 and 9 two more times with the same Pasteur pipette.
11. After thorough intermittent mixing, the 104 ml sample is ready for analysis.
12. Perform the analyses within 60 minutes.*

** From experience, for analysis of moulds more accurate results are often obtained if the final 104 ml sample is allowed to rest for 30 minutes (followed by a new mixing) prior to analysis.*