

# Consumer goods and Packaging

product catalogue  
2025



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chemical-physical

organoleptic

immunological, molecular  
biological & microbiological

# reference material



## Importance

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

## Description reference material

## Benefit of using certified reference materials

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivative reference materials. DRRR-Reference materials are essential for the chemical, physical, microbiological and sensory analytics as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials. The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

## Profit with our high quality standards for your lab work

## Characteristics

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
- DRRR-Reference materials do always refer to a DRRR-Proficiency testing
- reliable reference values according to advanced statistical evaluation
- independent service without influence of societies organisations and federations

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference materials.

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials.

## Identification

The reference materials listed on the following pages have specific article numbers to identify the materials. To supply our customers with consistently high quality the DRRR-reference materials will be replaced regularly by corresponding materials during the year.

Currently available reference materials and its corresponding reference values will be sent on request. We reserve our right to send you always the latest materials.

## Availability and order request of reference material

# Reference material - chemical-physical

| Art. no.                      | material description  | Parameters [*]   | additional information / packaging unit / price:         |
|-------------------------------|---|--|--|
| <b>Plastics, plastic film</b> |   |  |  |
| 1151001                       | <b>Plastic - overall migration (one-sided contact) (EN 1186-3)</b>                  | <input type="checkbox"/> overall migration (ethanol 10%) [mg/dm <sup>2</sup> ], overall migration (ethanol 20%) [mg/dm <sup>2</sup> ], overall migration (ethanol 50%) [mg/dm <sup>2</sup> ], overall migration (acetic acid 3%) [mg/dm <sup>2</sup> ], overall migration (dist. water) [mg/dm <sup>2</sup> ], overall migration (vegetable oil) [mg/dm <sup>2</sup> ]   | on request: <a href="mailto:info@drr.de">info@drr.de</a> |
| 1151002                       | <b>Plastic - overall migration (total immersion) (EN 1186-3)</b>                    | <input type="checkbox"/> overall migration (ethanol 10%) [mg/dm <sup>2</sup> ], overall migration (ethanol 20%) [mg/dm <sup>2</sup> ], overall migration (ethanol 50%) [mg/dm <sup>2</sup> ], overall migration (acetic acid 3%) [mg/dm <sup>2</sup> ], overall migration (dist. water) [mg/dm <sup>2</sup> ], overall migration (vegetable oil) [mg/dm <sup>2</sup> ]   |  |
| 1151044                       | <b>Plastic - overall migration (article filling) (EN 1186-3)</b>                    | <input type="checkbox"/> overall migration (ethanol 10%) [mg/kg], overall migration (ethanol 20%) [mg/kg], overall migration (ethanol 50%) [mg/kg], overall migration (acetic acid 3%) [mg/kg]   |  |
| 1151045                       | <b>Plastic - overall migration (fatty test food, total immersion) (EN 1186-3)</b>   | <input type="checkbox"/> overall migration (ethanol 95%) [mg/dm <sup>2</sup> ], overall migration (ISO octane) [mg/dm <sup>2</sup> ]   |  |
| 1151056                       | <b>Plastic, silicone - overall migration using MPPO</b>                             | <input type="checkbox"/> overall migration: 1. migration (MPPO) [mg/dm <sup>2</sup> ], overall migration: 2. migration (MPPO) [mg/dm <sup>2</sup> ], overall migration: 3. migration (MPPO) [mg/dm <sup>2</sup> ]  |  |
| 1151167                       | <b>Plastic - overall migration (fatty test food, one-sided contact) (EN 1186-3)</b> | <input type="checkbox"/> overall migration (ethanol 95%) [mg/dm <sup>2</sup> ], overall migration (ISO octane) [mg/dm <sup>2</sup> ]   |  |
| 1151003                       | <b>Plastic - specific migration caprolactam</b>                                     | <input type="checkbox"/> caprolactam (ethanol 10%) [mg/dm <sup>2</sup> ], caprolactam (ethanol 20%) [mg/dm <sup>2</sup> ], caprolactam (ethanol 50%) [mg/dm <sup>2</sup> ], caprolactam (acetic acid 3%) [mg/dm <sup>2</sup> ], caprolactam (dist. water) [mg/dm <sup>2</sup> ], caprolactam (vegetable oil) [mg/dm <sup>2</sup> ]   |  |
| 1151004                       | <b>Plastic - specific migration terephthalic acid</b>                               | <input type="checkbox"/> terephthalic acid (ethanol 10%) [mg/kg], terephthalic acid (ethanol 50%) [mg/kg], terephthalic acid (acetic acid 3%) [mg/kg], terephthalic acid (dist. water) [mg/kg], terephthalic acid (vegetable oil) [mg/kg]  |  |
| 1151005                       | <b>Plastic - specific migration acrylonitrile (EN 13130-3)</b>                      | <input type="checkbox"/> acrylonitrile (ethanol 10%) [mg/kg], acrylonitrile (acetic acid 3%) [mg/kg], acrylonitrile (dist. water) [mg/kg], acrylonitrile (vegetable oil) [mg/kg]   |  |
| 1151158                       | <b>Plastic - specific migration metals part 1</b>                                   | <input type="checkbox"/> antimony (Sb) (dist. water) [mg/kg], antimony (Sb) (acetic acid 3%) [mg/kg], arsenic (As) (dist. water) [mg/kg], arsenic (As) (acetic acid 3%) [mg/kg], cadmium (Cd) (dist. water) [mg/kg], cadmium (Cd) (acetic acid 3%) [mg/kg], aluminium (Al) (dist. water) [mg/kg], aluminium (Al) (acetic acid 3%) [mg/kg], nickel (Ni) (dist. water) [mg/kg], nickel (Ni) (acetic acid 3%) [mg/kg] |  |
| 1151159                       | <b>Plastic - specific migration metals part 2</b>                                   | <input type="checkbox"/> chromium (Cr) (dist. water) [mg/kg], chromium (Cr) (acetic acid 3%) [mg/kg], lead (Pb) (dist. water) [mg/kg], lead (Pb) (acetic acid 3%) [mg/kg], iron (Fe) (dist. water) [mg/kg], iron (Fe) (acetic acid 3%) [mg/kg], barium (Ba) (dist. water) [mg/kg], barium (Ba) (acetic acid 3%) [mg/kg], zinc (Zn) (dist. water) [mg/kg], zinc (Zn) (acetic acid 3%) [mg/kg]                       |  |
| 1151050                       | <b>Plastic - phthalate content</b>  | <input type="checkbox"/> DBP (CAS 84-74-2) [g/100g], BBP (CAS 85-68-7) [g/100g], DEHP (CAS 117-81-7) [g/100g], DNOP (CAS 117-84-0) [g/100g], DINP (CAS 28553-12-0) [g/100g], DIDP (CAS 26761-40-0) [g/100g], DEP (CAS 84-66-2) [g/100g], DMP (CAS 131-11-3) [g/100g]   |  |
| 1151062                       | <b>Plastic - bisphenol content</b>  | <input type="checkbox"/> bisphenol A (CAS 80-05-7) [μg/kg], bisphenol B (CAS 77-40-7) [μg/kg], bisphenol F (CAS 620-92-8) [μg/kg], bisphenol S (CAS 80-09-1) [μg/kg]   |  |
| 1151132                       | <b>Plastic - PAH content</b>  | <input type="checkbox"/> benzo[a]pyrene (CAS 50-32-8) [mg/kg], benzo[a]anthracene (CAS 56-55-3) [mg/kg], chrysene (CAS 218-01-9) [mg/kg], benzo[e]pyrene (CAS 192-97-2) [mg/kg], benzo[b]fluoranthene (CAS 205-99-2) [mg/kg], benzo[j]fluoranthene (CAS 205-82-3) [mg/kg], benzo[k]fluoranthene (CAS 207-08-9) [mg/kg], dibenzo[a,h]anthracene (CAS 53-70-3) [mg/kg]   |  |
| 1151173                       | <b>Plastic, silicone - volatile fractions</b>                                       | <input type="checkbox"/> Mass fraction of volatile substances [% (m/m)]  |  |

[\*] = In individual cases it can happen that there is no reference value available for a listed parameter

# Reference material - chemical-physical



| Art. no.                           | material description  | Parameters [*]  | additional information / packaging unit / price:           |
|------------------------------------|---|---|--|
| <b>Paper and board</b>             |   |   |  |
| 1151015                            | <b>Mineral oil in cardboard</b>   | <input type="checkbox"/> MOSH C10-C16 [mg/kg], MOSH C16-C20 [mg/kg], MOSH C20-C25 [mg/kg], MOSH C25-C35 [mg/kg], MOAH C10-C16 [mg/kg], MOAH C16-C25 [mg/kg], MOAH C25-C35 [mg/kg], MOSH C10-C35 [mg/kg], MOAH C10-C35 [mg/kg]   | on request: <a href="mailto:info@drrr.de">info@drrr.de</a> |
| 1151052                            | <b>Migration of mineral oil from cardboard</b>  | <input type="checkbox"/> MOSH C10-C16 [mg/dm <sup>2</sup> ], MOSH C16-C20 [mg/dm <sup>2</sup> ], MOSH C20-C25 [mg/dm <sup>2</sup> ], MOSH C25-C35 [mg/dm <sup>2</sup> ], MOAH C10-C16 [mg/dm <sup>2</sup> ], MOAH C16-C25 [mg/dm <sup>2</sup> ], MOAH C25-C35 [mg/dm <sup>2</sup> ], MOSH C10-C35 [mg/dm <sup>2</sup> ], MOAH C10-C35 [mg/dm <sup>2</sup> ]   |  |
| 1151161                            | <b>Mineral oil in jute bags</b>   | <input type="checkbox"/> MOSH C10-C16 [mg/kg], MOSH C16-C20 [mg/kg], MOSH C20-C25 [mg/kg], MOSH C25-C35 [mg/kg], MOSH C35-C40 [mg/kg], MOSH C40-C50 [mg/kg], MOAH C10-C16 [mg/kg], MOAH C16-C25 [mg/kg], MOAH C25-C35 [mg/kg], MOAH C35-C50 [mg/kg], MOSH C10-C50 [mg/kg], MOAH C10-C50 [mg/kg]   |  |
| 1151055                            | <b>Migration from paper, board using MPPO (EN 14338)</b>                                  | <input type="checkbox"/> overall migration (MPPO) [mg/dm <sup>2</sup> ]   |  |
| 1151067                            | <b>Colour fastness of dyed paper (EN 646)</b>   | <input type="checkbox"/> colour fastness (dist. Water) [-], colour fastness (acetic acid 3%) [-], colour fastness (olive oil) [-], colour fastness (alkali salt solution) [-]   |  |
| 1151149                            | <b>Paper, cardboard - overall migration (fatty test food, solvent extract) (EN 15519)</b> | <input type="checkbox"/> overall migration (ethanol 95%) [mg/dm <sup>2</sup> ], overall migration (ISO octane) [mg/dm <sup>2</sup> ]  |  |
| 1151187                            | <b>Paper, cardboard - PFAS</b>  | <input type="checkbox"/> total perfluorooctanesulfonic acid (CAS 1763-23-1) [µg/kg], total perfluoroctanoic acid (CAS 335-67-1) [µg/kg], total perfluorononanoic acid (CAS 375-95-1) [µg/kg], total perfluorohexane sulfonic acid (CAS 355-46-4) [µg/kg], total perfluorohexanoic acid (CAS 307-24-4) [µg/kg], total perfluorodecanoic acid (CAS 335-76-2) [µg/kg], total perfluorundecanoic acid (CAS 2058-94-8) [µg/kg], total perfluorododecanoic acid (CAS 307-55-1) [µg/kg], total perfluorotridecanoic acid (CAS 72629-94-8) [µg/kg], total perfluorotetradecanoic acid (CAS 376-06-7) [µg/kg], 6:2 FTOH (CAS 647-42-7) [µg/kg], 8:2 FTOH (CAS 678-39-7) [µg/kg], 10:2 FTOH (CAS 865-86-1) [µg/kg], 12:2 FTOH (CAS 39239-77-5) [µg/kg], 6:2 FTA (CAS 17527-29-6) [µg/kg], 8:2 FTA (CAS 27905-45-9) [µg/kg], 10:2 FTA (CAS 17741-60-5) [µg/kg], 6:2 FTMA (CAS 2144-53-8) [µg/kg], 8:2 FTMA (CAS 1996-88-9) [µg/kg], total fluor (TF) [mg/kg] |  |
| <b>Kitchen utensils and dishes</b> |   |   |  |
| 1151134                            | <b>Ceramics - release of lead and cadmium (EN 1388-1)</b>                                 | <input type="checkbox"/> lead (Pb) [mg/l], cadmium (Cd) [mg/l]  |  |
| 1151201                            | <b>Metals and alloys - migration of metals part 1</b>                                     | <input type="checkbox"/> aluminum (Al) [mg/kg], antimony (Sb) [mg/kg], chromium (Cr) [mg/kg], cobalt (Co) [mg/kg], copper (Cu) [mg/kg], iron (Fe) [mg/kg], magnesium (Mg) [mg/kg], manganese (Mn) [mg/kg], molybdenum (Mo) [mg/kg], nickel (Ni) [mg/kg], silver (Ag) [mg/kg], tin (Sn) [mg/kg], titanium (Ti) [mg/kg], vanadium (V) [mg/kg], zinc (Zn) [mg/kg]  |  |
| 1151202                            | <b>Metals and alloys - migration of metals part 2</b>                                     | <input type="checkbox"/> envelope volume [cm <sup>3</sup> ], aluminum (Al) [mg/kg], antimony (Sb) [mg/kg], chromium (Cr) [mg/kg], cobalt (Co) [mg/kg], copper (Cu) [mg/kg], iron (Fe) [mg/kg], magnesium (Mg) [mg/kg], manganese (Mn) [mg/kg], molybdenum (Mo) [mg/kg], nickel (Ni) [mg/kg], silver (Ag) [mg/kg], tin (Sn) [mg/kg], titanium (Ti) [mg/kg], vanadium (V) [mg/kg], zinc (Zn) [mg/kg]  |  |
| <b>Rubber</b>                      |   |   |  |
| 1151144                            | <b>Rubber - PAH content</b>   | <input type="checkbox"/> benzo[a]pyrene (CAS 50-32-8) [mg/kg], anthracene (CAS 120-12-7) [mg/kg], benzo[a]anthracene (CAS 56-55-3) [mg/kg], chrysene (CAS 218-01-9) [mg/kg], fluoranthene (CAS 206-44-0) [mg/kg]  |  |

[\*] = In individual cases it can happen that there is no reference value available for a listed parameter

# Reference material - chemical-physical



| Art. no.         | material description  | Parameters [*]  | additional information / packaging unit / price:<br>on request: <a href="mailto:info@drrr.de">info@drrr.de</a> |
|------------------|---|---|--|
| <b>Cosmetics</b> |   |   |  |
| 1151023          | <b>Care products</b>  | <input type="checkbox"/> Methyl 4-hydroxybenzoate calculated as acid [g/100g], Ethyl 4-hydroxybenzoate calculated as acid [g/100g], Propyl 4-hydroxybenzoate calculated as acid [g/100g], n-Butyl 4-hydroxybenzoate calculated as acid [g/100g], 2-phenoxyethanol [g/100g], benzoic acid [g/100g], sorbic acid [g/100g], methylisothiazolinone [mg/kg], Isobutyl 4-hydroxybenzoate calculated as acid [g/100g]  |  |
| 1151024          | <b>Shampoo, lotion</b>                                      | <input type="checkbox"/> density [g/ml], pH value [-], dry matter [g/100g], water content [g/100g], urea [g/100g], aw value [-]   |  |
| 1151026          | <b>Dental care - total fluoride</b>                         | <input type="checkbox"/> total fluoride [g/100g]  |  |
| 1151071          | <b>Cosmetics - heavy metals (ISO 21392)</b>                 | <input type="checkbox"/> lead (Pb) [mg/kg], arsenic (As) [mg/kg], antimony (Sb) [mg/kg], nickel (Ni) [mg/kg], cobalt (Co) [mg/kg], cadmium (Cd) [mg/kg], chromium (Cr) [mg/kg]  |  |
| 1151028          | <b>Cosmetics - UV filters</b>                               | <input type="checkbox"/> EHS (CAS 118-60-5) [g/100g], BMDM (CAS 70356-09-1) [g/100g], EHT (CAS 88122-99-0) [g/100g], PBSA (CAS 27503-81-7) [g/100g], OC calculated as acid (CAS 6197-30-4) [g/100g], titanium dioxide (CAS 13463-67-7) [g/100g], HMS (CAS 118-56-9) [g/100g], BEMT (CAS 187393-00-6) [g/100g], DHBB (CAS 302776-68-7) [g/100g], DEBT (CAS 154702-15-5) [g/100g], PDTA (CAS 180898-37-7) [g/100g], TDPA (CAS 90457-82-2) [g/100g], BZ4 (CAS 4065-45-6) [g/100g], BZ3 (CAS 131-57-7) [g/100g], IMC (CAS 71617-10-2) [g/100g], MBC (CAS 36861-47-9) [g/100g], EHDP (CAS 21245-02-3) [g/100g], EHMC (CAS 5466-77-3) [g/100g], MBBT (CAS 103597-45-1) [g/100g], P15 (CAS 207574-74-1) [g/100g]   |  |
| <b>Leather</b>   |   |   |  |
| 1151094          | <b>Leather - total metal content (ISO 17072-2)</b>          | <input type="checkbox"/> chromium (Cr) [mg/kg], nickel (Ni) [mg/kg], cadmium (Cd) [mg/kg], lead (Pb) [mg/kg], zirconium (Zr) [mg/kg], iron (Fe) [mg/kg], aluminium (Al) [mg/kg], titanium (Ti) [mg/kg]  |  |
| 1151194          | <b>Leather - PFAS (ISO 23702-1)</b>                         | <input type="checkbox"/> total perfluorohexane sulfonic acid (CAS 355-46-4) [µg/kg], total perfluoroctanesulfonic acid (CAS 1763-23-1) [µg/kg], total perfluorohexanoic acid (CAS 307-24-4) [µg/kg], total perfluoroctanoic acid (CAS 335-67-1) [µg/kg], total perfluoronanoic acid (CAS 375-95-1) [µg/kg], total perfluorodecanoic acid (CAS 335-76-2) [µg/kg], total perfluoroundecanoic acid (CAS 2058-94-8) [µg/kg], total perfluorododecanoic acid (CAS 307-55-1) [µg/kg], total perfluorotridecanoic acid (CAS 72629-94-8) [µg/kg], total perfluorotetradecanoic acid (CAS 376-06-7) [µg/kg], 6:2 FTOH (CAS 647-42-7) [µg/kg], 8:2 FTOH (CAS 678-39-7) [µg/kg], 10:2 FTOH (CAS 865-86-1) [µg/kg], 12:2 FTOH (CAS 39239-77-5) [µg/kg], 6:2 FTA (CAS 17527-29-6) [µg/kg], 8:2 FTA (CAS 27905-45-9) [µg/kg], 10:2 FTA (CAS 17741-60-5) [µg/kg], 6:2 FTMA (CAS 2144-53-8) [µg/kg], 8:2 FTMA (CAS 1996-88-9) [µg/kg], total fluor (TF) [mg/kg] |  |
| 1151200          | <b>Footwear materials - phthalates</b>                      | <input type="checkbox"/> DINP (CAS 28553-12-0) [mg/kg], DEHP (CAS 117-81-7) [mg/kg], DNOP (CAS 117-84-0) [mg/kg], DIDP (CAS 26761-40-0) [mg/kg], BBP (CAS 85-68-7) [mg/kg], DBP (CAS 84-74-2) [mg/kg], DIBP (CAS 84-69-5) [mg/kg]   |  |
| <b>Textiles</b>  |   |   |  |
| 1151020          | <b>Textiles - phosphorus flame retardants (ISO 17881-2)</b> | <input type="checkbox"/> tributyl phosphate (CAS 126-73-8) [mg/kg], o-triskresyl phosphate (CAS 78-30-8) [mg/kg], tris(2-chloroethyl)-phosphate (CAS 115-96-8) [mg/kg], tris(2,3-dibromopropyl)-phosphate (CAS 126-72-7) [mg/kg], tris(2-chloro-1-methylethyl)-phosphate (CAS 13674-84-5) [mg/kg]   |  |
| 1151087          | <b>Textiles - PFAS</b>                                      | <input type="checkbox"/> total perfluorooctanesulfonic acid (CAS 1763-23-1) [mg/kg], total perfluoroctanoic acid (CAS 335-67-1) [mg/kg], total perfluoronanoic acid (CAS 375-95-1) [mg/kg], total perfluorohexane sulfonic acid (CAS 307-24-4) [mg/kg], total perfluorodecanoic acid (CAS 335-76-2) [mg/kg], total perfluoroundecanoic acid (CAS 2058-94-8) [mg/kg], total perfluorododecanoic acid (CAS 307-55-1) [mg/kg], total perfluorotridecanoic acid (CAS 72629-94-8) [mg/kg], total perfluorotetradecanoic acid (CAS 376-06-7) [mg/kg], 6:2 FTOH (CAS 647-42-7) [mg/kg], 8:2 FTOH (CAS 678-39-7) [mg/kg], 10:2 FTOH (CAS 865-86-1) [mg/kg], 12:2 FTOH (CAS 39239-77-5) [mg/kg], 6:2 FTA (CAS 17527-29-6) [mg/kg], 8:2 FTA (CAS 27905-45-9) [mg/kg], 10:2 FTA (CAS 17741-60-5) [mg/kg], 6:2 FTMA (CAS 2144-53-8) [mg/kg], 8:2 FTMA (CAS 1996-88-9) [mg/kg], total fluor (TF) [mg/kg]   |  |
| 1151090          | <b>Textiles - phthalate content (ISO 14389)</b>             | <input type="checkbox"/> DINP (CAS 28553-12-0) [mg/kg], DEHP (CAS 117-81-7) [mg/kg], DNOP (CAS 117-84-0) [mg/kg], DIDP (CAS 26761-40-0) [mg/kg], BBP (CAS 85-68-7) [mg/kg], DBP (CAS 84-74-2) [mg/kg], DIBP (CAS 84-69-5) [mg/kg], DPP (CAS 131-18-0) [mg/kg], DIHP (CAS 71888-89-6) [mg/kg], DMEP (CAS 117-82-8) [mg/kg]   |  |
| 1151091          | <b>Textiles - PAH (EN 17132)</b>                            | <input type="checkbox"/> benzo[a]pyrene (CAS 50-32-8) [mg/kg], benzo[a]anthracene (CAS 56-55-3) [mg/kg], chrysene (CAS 218-01-9) [mg/kg], naphthalene (CAS 91-20-3) [mg/kg], benzo[e]pyrene (CAS 192-97-2) [mg/kg], benzo[b]fluoranthene (CAS 205-99-2) [mg/kg], benzo[j]fluoranthene (CAS 205-82-3) [mg/kg], benzo[k]fluoranthene (CAS 207-08-9) [mg/kg], dibenzo[a,h]anthracene (CAS 53-70-3) [mg/kg]   |  |
| <b>Toys</b>      |   |   |  |
| 1151040          | <b>Scrapped-off materials - elements (EN 71-3)</b>          | <input type="checkbox"/> tin (Sn) [mg/kg], zinc (Zn) [mg/kg], nickel (Ni) [mg/kg], strontium (Sr) [mg/kg], antimony (Sb) [mg/kg], barium (Ba) [mg/kg], cadmium (Cd) [mg/kg], cobalt (Co) [mg/kg], lead (Pb) [mg/kg], chromium III (Cr III) [mg/kg], chromium VI (Cr VI) [mg/kg], chromium (Cr) [mg/kg], aluminium (Al) [mg/kg], arsenic (As) [mg/kg], copper (Cu) [mg/kg], manganese (Mn) [mg/kg], mercury (Hg) [mg/kg], selenium (Se) [mg/kg]  |  |
| <b>Jewellery</b> |   |   |  |
| 1151043          | <b>Jewellery (acc. to EN 1811)</b>                          | <input type="checkbox"/> surface area [cm²], nickel release [µg/cm²/week]   |  |

[\*] = In individual cases it can happen that there is no reference value available for a listed parameter

# Reference material - immunological, molecular biological & microbiological



| Art. no.               | material description  | Parameters [*]  | risk group          | additional information / packaging unit / price: |
|------------------------|---|---|---------------------|--|
| <b>Canning, glass</b>  |   |   |                     |  |
| 2251004                | <b>Mesophilic sterility testing tinned food</b>                 | <input type="checkbox"/> mesophilic germ load (pos./neg.)   | <b>risk group 1</b> |  |
| 2251019                | <b>Thermophilic sterility testing tinned food</b>               | <input type="checkbox"/> thermophilic germ load (55°C) (pos./neg.)  | <b>risk group 1</b> |  |
| 2251020                | <b>Anaerobic mesophilic sterility testing tinned food</b>       | <input type="checkbox"/> anaerobic mesophilic germ load (pos./neg.)   | <b>risk group 2</b> |  |
| <b>Plastic surface</b> |   |   |                     |  |
| 2251001                | <b>Moulds plastic surface</b>                                   | <input type="checkbox"/> moulds [cfu/100qcm]  | <b>risk group 1</b> |  |
| 2251002                | <b>Aerobic total count plastic surface</b>                      | <input type="checkbox"/> aerobic total count [cfu/100qcm]   | <b>risk group 1</b> |  |
| 2251037                | <b>Enterobacteriaceae plastic surface</b>                       | <input type="checkbox"/> Enterobacteriaceae [cfu/100qcm]  | <b>risk group 1</b> |  |
| 2251038                | <b>Listeria spp. plastic surface</b>                            | <input type="checkbox"/> Listeria spp. [cfu/100qcm]   | <b>risk group 2</b> |  |
| <b>Paper and board</b> |   |   |                     |  |
| 2251029                | <b>Paper - transition of antimicrobial components (EN 1104)</b> | <input type="checkbox"/> antibacterial effect Bacillus subtilis [mm], antimycotic effect Aspergillus niger [mm] (pos./neg.)       |                     |  |
| 2251039                | <b>Aerobic bacteria on paper, board (ISO 8784-2)</b>            | <input type="checkbox"/> aerobic total count  | <b>risk group 1</b> |  |
| 2251040                | <b>Moulds on paper, board (ISO 8784-2)</b>                      | <input type="checkbox"/> moulds   | <b>risk group 1</b> |  |
| <b>Cosmetic</b>        |   |   |                     |  |
| 2251005                | <b>Aerobic Bacteria O W-emulsion</b>                            | <input type="checkbox"/> aerobic total count [cfu/g]  | <b>risk group 1</b> |  |
| 2251006                | <b>Moulds O W-emulsion</b>                                      | <input type="checkbox"/> moulds [cfu/g]   | <b>risk group 1</b> |  |
| 2251007                | <b>E.coli O W-emulsion</b>                                      | <input type="checkbox"/> E.coli (pos./neg.)   | <b>risk group 2</b> |  |
| 2251008                | <b>S.aureus O W-emulsion</b>                                    | <input type="checkbox"/> S.aureus (pos./neg.)   | <b>risk group 2</b> |  |
| 2251009                | <b>Identification of germs O W-emulsion</b>                     | <input type="checkbox"/> identification of germs  | <b>risk group 2</b> |  |
| 2251010                | <b>C.albicans O W-emulsion</b>                                  | <input type="checkbox"/> C.albicans (pos./neg.)   | <b>risk group 2</b> |  |
| 2251011                | <b>Ps.aeruginosa O W-emulsion</b>                               | <input type="checkbox"/> Ps.aeruginosa (pos./neg.)  | <b>risk group 2</b> |  |
| 2251028                | <b>Challenge test</b>   | <input type="checkbox"/> Ps.aeruginosa [CFU/g], S.aureus [CFU/g], E.coli [CFU/g], C.albicans [CFU/g], A.brasiensis [CFU/g]        | <b>risk group 2</b> |  |
| <b>Textiles</b>        |   |   |                     |  |
| 2251024                | <b>Antimicrobial Fabric Test textiles - AATCC 100</b>           | <input type="checkbox"/> antibacterial activity S.aureus [% reduction], antibacterial activity K.pneumoniae [% reduction]         |                     |  |
| 2251025                | <b>Antibacterial Parallel Streak textiles - AATCC 147</b>       | <input type="checkbox"/> antibacterial activity S.aureus, antibacterial activity K.pneumoniae (pos./neg.)                         |                     |  |
| 2251026                | <b>Antibacterial Activity textiles - ISO 20743</b>              | <input type="checkbox"/> antibacterial activity S.aureus [log10 reduction], antibacterial activity K.pneumoniae [log10 reduction] |                     |  |
| <b>Tattoo ink</b>      |   |   |                     |  |
| 2251012                | <b>Aerobic bacteria in tattoo ink</b>                           | <input type="checkbox"/> aerobic total count [cfu/g]  | <b>risk group 1</b> |  |

[\*] = Sometimes we used more than one method per parameter. The values of the germ contents varies for each material from  $10^2$  to  $10^5$  KbE/g or KbE/ml and can be asked before order.

# Reference material - immunological, molecular biological & microbiological



| Art. no.            | material description  | Parameters [*]  | risk group | additional information / packaging unit / price:           |
|---------------------|---|---|------------|--|
| <b>Disinfectant</b> |   |   |            |  |
| 2251013             | <b>Disinfectant bactericidal activity (EN 13727, EN 1276)</b> | <input type="checkbox"/> bactericidal effect S.aureus conc. 1 [ $\log_{10}$ cfu/ml],<br>bactericidal effect S.aureus conc. 2 [ $\log_{10}$ cfu/ml],<br>bactericidal effect S.aureus conc. 3 [ $\log_{10}$ cfu/ml],<br>bactericidal effect Ps.aeruginosa conc. 1 [ $\log_{10}$ cfu/ml], bactericidal effect Ps.aeruginosa conc. 2 [ $\log_{10}$ cfu/ml], bactericidal effect Ps.aeruginosa conc. 3 [ $\log_{10}$ cfu/ml] |            | on request: <a href="mailto:info@drrr.de">info@drrr.de</a> |
| 2251014             | <b>Disinfectant levurocidal activity (EN 13624, EN 1650)</b>  | <input type="checkbox"/> Levurocidal effect C.albicans conc. 1 [ $\log_{10}$ cfu/ml],<br>Levurocidal effect C.albicans conc. 2 [ $\log_{10}$ cfu/ml],<br>Levurocidal effect C.albicans conc. 3 [ $\log_{10}$ cfu/ml]  |            |  |
| 2251015             | <b>Disinfectant mycobactericidal activity (EN 14348)</b>      | <input type="checkbox"/> mycobactericidal effect M.terrae conc. 1 [ $\log_{10}$ cfu/ml], mycobactericidal effect M.terrae conc. 2 [ $\log_{10}$ cfu/ml], mycobactericidal effect M.terrae conc. 3 [ $\log_{10}$ cfu/ml]   |            |  |
| 2251016             | <b>Disinfectant sporocidal activity (EN 17126)</b>            | <input type="checkbox"/> sporocidal activity B.subtilis [ $\log_{10}$ pfu/ml],<br>sporocidal activity B.cereus [ $\log_{10}$ pfu/ml]  |            |  |
| 2251017             | <b>Disinfectant virucidal activity (EN 14476)</b>             | <input type="checkbox"/> virucidal activity (Vaccinia virus) [ $\log_{10}$ pfu/ml]  |            |  |

[\*] = Sometimes we used more than one method per parameter. The values of the germ contents varies for each material from  $10^2$  to  $10^5$  KbE/g or KbE/ml and can be asked before order.