Technical Data Sheet – Item No. 100.0100

TSA + LTHT Cont. CSG

Version 16
Effective date: 05-11-2026

QUALITY | SAFETY | SERVICE

	Technical Data
Use in	• Pharmaceutical industry in clean rooms and isolators • For industrial, laboratory & research applications only
Use for	• Detection of aerobic and anaerobic micro-organisms • Contact sampling, personnel monitoring, as well as active air monitoring • Isolation and growth of fastidious bacteria, yeasts and moulds • Neutralization of residues of disinfectants The medium should be applied with a uniform and steady pressure to the surface for few seconds. After sampling, the surface must be cleaned to remove residues of the medium.
Typical composition per liter	Basic medium according to Ph. Eur. 2.6.12, 2.6.13 and USP <61>, <62> Casein peptone 15 g; Soy peptone 5 g; NaCl 5 g; Agar 15 g; Lecithin (L) 0.7 g; Polysorbate 80 (T) 5 g; Histidine (H) 0.5 g; Na - Thiosulfate (T) 0.1 g This medium can be adjusted and/or supplemented according to the performance criteria required.
Irradiation	• Irradiated at 9 – 20 kGy
Filling volume	• 16 – 19 mL
Packaging	• Triple bagged, staples of 10 plates • Transparent • High barrier foil for H_2O_2 as well as for water-vapour • 10 staples of 10 plates per packaging unit • Temperature isolated handle-bag in the cardboard-boxes
Plates per box	• 100 (10 staples with 10 plates each)
Shelf life	• 12 months from production date
Storage conditions	• Recommended storage temperature: 15-25 °C • Should be stored at temperatures as stable as possible • Avoid prolonged exposure to direct sunlight • Before use: it is recommended to keep the plates upright (agar on the lower part, lid on the upper part) to avoid formation of extra condensation • After use: it is recommended to keep the plates upside down (agar on the upper part, lid on the lower part) to reduce the risk of accumulation of condensation during incubation which can affect colony formation

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	Technical Data
Label	• On the side, at the bottom
Label information	• Product name: TSA + LTHT • Expiry date: YYYYMMMDD ➔ MMM in letters (e.g.: 2026Nov04) • Lot-number • Individual number • Barcode
Barcode	• 2-dimensional (data matrix), 20 digits: • Digits 1-3: Art.-No. • Digits 4-9: Lot-Number • Digits 10-14: Individual-Number • Digits 15-20: Date (YYMMDD)
Delivery	• Temperature controlled delivery on request • For shipments of larger amounts plastic pallets in Euro-size can be used
Petri dish	• Locking-lid plate, made from polystyrene • Inner diameter: ~ 56.5 mm, thus providing an area of ~25 cm^2 • Outer diameter: ~ 66 mm • Bottom part with 1 cm^2 square grid for facilitated evaluation • Incubations in vent and closed position possible • Specific design to improve binding of agar to plate • Easy handling due to increased handling area • The bottom of the Petri dish contains “condensation collection channels” which capture and retain potential condensation originating from the culture medium, thereby increasing sampling safety
Lid positions	• All plates are delivered in the non-locked position • The plate contains 2 locked positions. If turning the lid clockwise the locked positions are in the following order: 1. Vent position 2. Closed position • Please check the recommendations for use on page 5
Place of production	PharmaMedia Dr. Müller GmbH Gustav-Throm-Str. 1, 69181 Leimen - Germany

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Quality control, Certificates

Certificates

Every batch of product can be obtained with a certificate of analysis (CoA):

Physico-chemical test parameters:				
Appearance	Slightly turbid, yellowish			
pH value	7.1 – 7.5			
Filling volume	16 – 19 mL			
Irradiation	9 – 20 kGy			
Growth Promotion test: 10 – 100 CFU				
S. aureus	ATCC 6538	30-35 °C	1 day	50-200%
E. coli	ATCC 8739	30-35 °C	1 day	50-200%
P. paraeruginosa	ATCC 9027	30-35 °C	1 day	50-200%
B. spizizenii	ATCC 6633	30-35 °C	1 day	50-200%
C. albicans	ATCC 10231	30-35 °C	2-3 days	50-200%
A. brasiliensis	ATCC 16404	30-35 °C	2-3 days	50-200%
Sterility control				No growth

Certificate of origin

All media lots produced by PMM can be obtained with a Certificate of Origin (CoO). All animal derived raw materials are specified as follows:

- Raw material
- Tissue
- Animal source
- Country of origin
- Infectivity category (acc. to TSE guideline: EMA/410/01 current version)

Non-animal-derived raw materials are not listed in the CoO; raw materials listed on the CoA in the typical composition section but not listed on the CoO are of non-animal origin.

BSE policy

In compliance with the current note for guidance on minimizing the risk of transmitting animal spongiform encephalopathy via human or veterinary medicinal products, we check the CoO of raw material in respect to the specified animal source, the country of origin and the infectivity category. We neither store or process ruminant raw materials obtained from high infectivity tissues (IA) nor ruminant raw materials whose animal source originates from countries or regions with an undetermined risk (cat C/GBR IV).

Temperature stress

Art. 100.0100 has been exposed to temperature stress conditions (3 days at 2-8 °C as well as 3 days at 30-35 °C) and has passed shelf-life testing at least 30 days after the assigned expiry date. Shelf-life testing comprises all regular tests which are part of the normal release test of this article except for sterility control (see CoA).

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Neutralization of residues of disinfectants	The inactivation of residues of disinfectants is critical for the detection of viable and cultivable microorganisms in pharmaceutical production environments. For this purpose, different neutralizer combinations are added to the medium used for environmental monitoring. Most commercially available media contain Lecithin (L), Tween 80 (T), Histidine (H) and Thiosulfate (T). However, other neutralizers like Saponin, Cysteine and Glycine may be used as well. The composition as well as the concentration of single components are crucial for an effective inactivation of the residuals of disinfectants and therefore for the effective detection of microorganisms. The addition of different neutralizing components and concentrations to media has to be evaluated thoroughly. Besides the inactivation of residues of disinfectants neutralizers may have an inhibiting effect on the growth of microorganisms if used in higher concentrations thus making the detection of certain microorganisms difficult to impossible. Today most media used for environmental monitoring are using at least Lecithin and Tween in more or less identical concentrations: - Lecithin: 0,7 g/L - Tween: 5 g/L Furthermore, most media manufacturer add two additional neutralizers to the media, however here the concentrations differ: - Histidine: 0,5 to 1 g/L - Na-Thiosulfate: 0,05 to 0,5 g/L We have tested our plates with respect to the inactivation of disinfectants using the worst-case approach by directly inoculating defined amounts of disinfectant on the agar plates. Typically, 20 µL, 50 µL or 100 µL of disinfectant was used. 100 µL of disinfectant applied to a contact plate of about 25 cm^2 surface correspond to about 40 mL of disinfectant used to disinfect an area of one square meter, a concentration typically used in the pharmaceutical industry. After a period of 15 to 20 min the test organisms were applied to the treated plates. Test organisms used for such neutralization tests could be for example *B. spizizenii* ATCC 6633, *S. aureus* ATCC 6538 and *S. epidermidis* ATCC 14990 as well as *E. coli* ATCC 8739, *P. paraeruginosa* ATCC 9027, *C. albicans* ATCC10231 and *A. brasiliensis* ATCC 16404. As reference, plates not treated with disinfectant were used. Specifications: for sufficient inactivation of disinfectants the amount of 50 µL of a disinfectant applied to a contact plate must be inactivated, resulting in a recovery rate of more than 50%. Results: TSA plates w. LTHT (Art.-code 100.0100) were able to inactivate the following groups of disinfectant: - Alcohols (ethanol, propanol, iso-propanol) - Hydrogen peroxide (Biocide C)

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	Quality control, Certificates
	- Peracetic acids (Incidin active 2%, Perform sterile PAA) - Mg-peroxyphtalate (Dismozon 4%) - K-peroxymonosulfate (Perfom con. OXY 1%) - Aldehydes like Glutaraldehyd, Formaldehyde (Aldasan 4%) - Combinations of alcohol, hydrogen peroxide and peracetic acid (Actril) - Combinations of aldehydes + alcohols (Aerodesin 2000, Bacillol Plus) However, TSA plates w. LTHT were only able to inactivate quite low concentrations of quaternary ammonium compounds, biguanides and benzalkonium chloride. As these components are normally used in higher concentrations in disinfectants, they do not degrade by themselves and they are not volatile, it is required to clean such surfaces after disinfection with sterile water or sterile alcohol. Whereas the cleaning/rinsing may work properly on flat surfaces it seems likely that on other surfaces residues may remain or eventually even may be concentrated. Instead of such cleaning/rinsing step newly developed neutralizing contact plates could be used. This special neutralizing plate TSA U+ inactivates even high amounts of quaternary ammonium compounds, biguanides and benzalkonium chlorides, without interfering with the growth of microorganisms.

	Recommendations for use
Aerobic incubation	• The closed position provides ideal incubation conditions for aerobic microorganisms • Limits the dehydration of the agar during incubation • For long incubation of aerobic microorganisms, the closed position is recommended To lock the lid in the closed position, turn the lid clockwise into the final stop position
Anaerobic incubation	• The vent position is ideal for anaerobic incubations, as it allows an easy and effective removal of oxygen under anaerobic incubation conditions • Incubate in anaerobic incubator, anaerobic jar or suitable equipment 1. First option: • Turn the lid clockwise into the final stop position • Turn the lid one click counterclockwise to the vent position 2. Second option: Turn the lid clockwise directly into the first locked position

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	Safety Data
Toxic ingredients	• None
Basic composition	• See typical composition
Solvent content	• None
Safety data sheet required	• Not mandatorily required

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