	Technical Data Sheet			
Use in	<ul> <li>Pharmaceutical Industry in clean rooms and isolators</li> <li>For industrial, laboratory &amp; research applications only</li> <li>Basic medium according to EP 2.6.12, 2.6.13 and USP &lt;61&gt;, &lt;62&gt;</li> </ul>			
Use for	<ul> <li>Isolation and growth of yeasts and molds</li> <li>Active and passive air monitoring, personnel monitoring</li> <li>Inhibits the growth of most bacteria</li> <li>Neutralization of residues of disinfectants</li> </ul>			
Typical composition per liter	Casein peptone 5 g Lecithin (L) 0.7 g Meat peptone 5 g Polysorbate 80 (T) 5 g Glucose-D(+)*H $_2$ O 44 g* Histidine (H) 0.5 g Agar 15 g Na-Thiosulfate (T) 0.1 g This medium can be adjusted / or supplemented according to the performance criteria required.  *Glucose-D(+)*H $_2$ O = Glucose monohydrate *44 g Glucose monohydrate = 40 g Glucose = 40 g Dextrose			
Irradiation	Irradiated at 9-20 kGy			
Filling volume	• 28-32 mL			
Packaging	<ul> <li>Triple bagged, staples of 10 plates</li> <li>Transparent</li> <li>High barrier foil for H<sub>2</sub>O<sub>2</sub> as well as for water-vapor</li> <li>6 staples of 10 plates per packaging unit</li> <li>Temperature isolated handle-bag in the cardboard-boxes</li> </ul>			
Plates per box	60 plates (6 staples with 10 plates each)			
Shelf life	12 months from production date			
Storage conditions	<ul> <li>Recommended storage temperature: 15-25 °C</li> <li>Should be stored at temperatures as stable as possible</li> <li>Store protected from light exposure</li> <li>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</li> <li>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</li> </ul>			
Label	On the side of the bottom part of the dish			



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Label information	<ul> <li>Product name: SDA + LTHT</li> <li>Expiry date: YYYYMMMDD → MMM in letters (e.g.: 2023Nov04)</li> <li>Lot-number</li> <li>Individual number</li> <li>Barcode</li> </ul>			
Barcode	<ul> <li>2-dimensional (data matrix), 20 digits:</li> <li>Digits 1-3: ArtNo.</li> <li>Digits 4-9: Lot-Number</li> <li>Digits 10-14: Individual-Number</li> <li>Digits 15-20: Date (YYMMDD)</li> </ul>			
Delivery	<ul> <li>Temperature controlled delivery on request</li> <li>For shipments of larger amounts plastic pallets in Euro-size can be used</li> </ul>			
Petri dish (Pink Plate)	<ul> <li>Locking lid 90 mm plate, made from polystyrene</li> <li>Long incubations possible – due to high filling volume</li> <li>Long expositions possible – due to specific design of plate</li> <li>Incubations in vent and closed position possible</li> <li>SDA plates are produced in pink dishes for better differentiation from TSA plates</li> </ul>			
Lid positions	<ul> <li>All plates are delivered in the non-locked position</li> <li>The plate contains 2 locked positions. If turning the lid clockwise the locked positions are in the following order:</li> <li>1. Vent position</li> <li>2. Closed position</li> </ul>			
Aerobic incubation	<ul> <li>The closed position provides ideal incubation conditions for aerobic microorganisms and limits the dehydration of the agar during incubation</li> <li>For long incubation of aerobic microorganisms, the closed position is recommended</li> <li>To lock the lid in the closed position turn the lid clockwise into the final stop position</li> </ul>			
Anaerobic incubation	<ul> <li>The vent position is ideal for anaerobic incubations, as it allows an easy and effective removal of oxygen under anaerobic incubation conditions</li> <li>Incubate in anaerobic incubator, anaerobic jar or suitable equipment</li> <li>First option:</li> <li>Turn the lid clockwise into the final stop position</li> <li>Turn the lid one click counter-clock-wise to the vent position</li> <li>Second option:</li> <li>Turn the lid clockwise directly into the first locked position</li> </ul>			



	Technical Data Sheet
Place of	PharmaMedia Dr. Müller GmbH
production	Gustav-Throm-Str. 1, 69181 Leimen - Germany

	Quality control, Certificates					
	Each lot of produ	ct can be obtaine	d with a cert	ificate of an	alysis (CoA):	
	Physico-chemi	cal test paramet	ers:			7
	Appearance	Clear, yellowish				
	pH value	5.4 – 5.8				
	Filling volume	28-32 mL				_
Certificates	Irradiation	9-20 kGy				-
	Growth Promot	tion test: 10-100	CFU			-
	C. albicans	ATCC 10231	20-25 °C	2-3 days	50-200%	1
	A. brasiliensis	ATCC 16404	20-25 °C	3-5 days	50-200%	
	Sterility contro	l			No growth	]
Certificate of origin	<ul> <li>Raw material</li> <li>Tissue</li> <li>Animal source</li> <li>Country of orig</li> <li>Infectivity cate</li> </ul>	gin gory (acc. to TSE	guideline: E	EMA/410/01	current versi	on)
BSE policy	<ul> <li>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).</li> </ul>					
Temperature stress	at 2-8 °C as w at least 30 day all regular test	has been exposed ell as 3 days at 3 s after the assign ts which are part ility control (see C	0-35 °C) and ed expiry da of the norn	d has passe ate. Shelf-lif	ed shelf-life te e testing com	esting nprise



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, Tween 80, Histidine and Thiosulfate. 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/LTween: 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

# Neutralization of residues of disinfectants

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  $\mu$ L, 50  $\mu$ L or 100  $\mu$ L of disinfectant was used. 100  $\mu$ l of disinfectant applied to a contact plate of about 25 cm² 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 typically used were the more sensitive Gram-positive microorganisms *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 without disinfectant were inoculated with the test strains.

Specifications: for sufficient inactivation of disinfectants the amount of 50  $\mu$ L 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)
- 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)



Quality control, Certificates
- 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.

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