

Organisms & morphology: Tryptone Soya Agar (TSA) plus Neutralisers will support growth of a wide range of aerobic and anaerobic bacteria if incubated under the right conditions A typical set of control organisms and the phenotypic identification associated with these are:

	Morphology		Gram		Biochemical test		
Organism	Edge	Shape	Colour	Gram	Shape	Catalase	Oxidase
Staphylococcus aureus	Smooth	Regular	Yellow / Cream	Positive	Cocci	Positive	Negative
Staphylococcus epidermidis	Smooth	Regular	Yellow / Cream	Positive	Cocci	Positive	Negative
Escherichia coli	Smooth	Regular	Cream	Negative	Rods	Positive	Negative
Bacillus subtilis	Irregular	Irregular	Cream	Positive	Rods	Positive	Variable
Pseudomonas aeruginosa	Smooth	Regular	Cream	Negative	Rods	Positive	Positive







Organisms & morphology: Tryptone Soya Agar (TSA) plus Neutralisers will support growth of a wide range of aerobic and anaerobic bacteria if incubated under the right conditions A typical set of control organisms and the phenotypic identification associated with these are:

	Morphology		
Fungal	Edge	Shape	Colour
Candida albicans	Smooth	Regular	Cream
Aspergillus brasiliensis	Irregular	Irregular	White to black







Regulatory references: TSA is a Harmonised Pharmacopoeia medium and as such is mentioned in the BP/EP/JP, as well as the US Pharmacopoeia.

EP Chapter Ref 2.6.12 Microbial examination of non-sterile products: Microbial enumeration tests					
Recommended Culture Media	Property	Micro-organisms	Incubation Time & Temp		
Casein Soyabean Digest Agar	Bacillus subtilis Growth promotion Pseudomonas aeruginosa Staphylococcus aureus		30-35°C for < 3 days		
	Growth promotion	Candida albicans Aspergillus brasiliensis	30-35°C for < 5 days		







Regulatory references: TSA is a Harmonised Pharmacopoeia medium and as such is mentioned in the BP/EP/JP, as well as the US Pharmacopoeia.

EP Chapter Ref 2.6.12 Microbial examination of non-sterile products: Microbial enumeration tests Table 2.6.12.-2. – Common neutralising agents for interfering substances

Interfering substances	Potential neutralising method		
Gluteraldehyde, Mercurials	Sodium hydrogen sulphite (Sodium bisulphite)		
Phenolics, alcohol, aldehydes, sorbate	Diluton		
Aldehydes	Glycine		
Quaternary Ammonium Compounds (QAC's), parahydroxybenzoates (parabens), bis-biguanides	Lecithin		
QAC's, iodine, parabens	Polysorbate (Tween)		
Mercurials	Thioglycollate		
Mercurials, halogens, aldehydes	Thiosulphate		
EDTA	Mg2+ or Ca2+ ions		



