38587 RLS Broth (Rapid Lemonade Spoilage Organism Broth; SSL Broth)

Rapid enrichment medium for the beverage spoiling microorganisms, like yeasts, molds, lactic acid and acetic acid bacteria. It can be used for all kind of beverage, base ingredients or swap samples in the soft drink, dairy and winery industry.

Composition:

Ingredients	Grams/Litre
Orange extract (=Orangenserum 10 °Brix (60 °Brix) 400 g/L (60 g/l))	40.0
Malt Extract	200.0
Yeast Extract	3.0
Saccharose	30.0
Glucose	30.0
Fructose	10.0
D(+)-Biotin (Vitamin H)	100 ug/L
Final pH (at 25°C) 5.0 ± 0.2	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:
Dissolve 313 g in 1 litre distilled water. Sterilize by autoclaving at 121°C for 15 minutes.
For normal beverages mix add 50 ml broth to 200 mL of sample. For base ingredients 10-20 mL of sample are added to 50 mL broth. For filtered samples the rolled membrane is given in a sterile tube or flask with broth. It is recommended to degas carbonated beverages before performing analysis.
Incubate under aerobic conditions for 2 days at a temperature of 25-29°C.

Principle and Interpretation:
RLS Broth is an excellent enrichment broth for spoiling organisms in soft drinks, beverages in dairy and winery indusrty. SSL (see synonym) comes from the German “Schneller Spurennachweis für Limonadenschädlinge” which means rapid detection of lemonade spoiling organisms, like for example yeast, fungi, lactic acid and acetic acid bacteria.
The orange extract, malt extract and yeast extract are natural sources of fermentable carbohydrates, nitrogenous substances and other essential growth nutrients for the organisms.
The saccharose, glucose and fructose are the easy fermentable carbohydrate sources and serve as the source of energy for the organisms. Biotin act as supplement to promote the growth of the organisms.

Cultural characteristics after 48 hours at 25-29°C.

Organisms	**Inoculum**	**Growth**
Lactobacillus lindneri (DSM 20690)	50-100	+++
Acetobacter pomorum (DSM 11825)	50-100	+++
Saccharomyces cerevisiae (DSM 70487)	50-100	+++
Aspergillus brasiliensis (DSM 1988, ATCC 16404)	50-100	+++

References:

1. Herding, B., Zöllkau, K., Wittich, G., und Krämer, J., Untersuchungen zum schnellen Nachweis von limonadenschädlichen Hefen in Flüssigzucker im Rahmen der Qualitätssicherung, Monatsschrift für Brauwissenschaft 45, Nr. 10, 324-329 (1992)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.