



## Maximum Recovery Diluent

Diluent for preparation of food samples for microbiological examination, according to ISO 6887.

### DESCRIPTION

Maximum Recovery Diluent is a protective and isotonic diluent used to maximize the recovery of microorganisms in the preparation of the initial suspension and decimal dilutions of test samples. This diluent is also known as Peptone Salt Solution and complies with the recommendations of ISO 6887 for the microbiological examination of food.

### TYPICAL FORMULA (per liter of purified water)

Enzymatic Digest of Casein	1.0 g
Sodium Chloride	8.5 g
Final pH 7.0 ± 0.2 at 25°C	

### METHOD PRINCIPLE

Enzymatic digest of casein provides amino acids, nitrogen, carbon and minerals. Sodium chloride maintains the osmotic balance of the medium.

### PREPARATION

Dehydrated medium Suspend 9.5 g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boil shaking frequently until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes.

### TEST PROCEDURE

Use this diluent according to specific procedures for microbiological examination of food samples. For ISO method, put 10 g or 10 ml of the test sample into a sterile vessel or sterile plastic bag. Add 90 ml of Maximum Recovery Diluent and homogenize with a blender or Stomacher. Transfer 1 ml of the macerate, within 15 minutes, to 9 ml of sterile diluent and mix well. The number of further decimal dilutions depends on the expected contamination of the sample.

### INTERPRETING RESULTS

Due to the isotonic propriety of the diluent, several organisms, even stressed or injured cells are allowed to recover and maintain their viability for 1-2 h without multiplication.

### STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed. Store tubes, bottles and bags at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

### SHELF LIFE

Dehydrated medium: 4 years.  
Medium in tubes, bottles or bags: 2 years.

### QUALITY CONTROL

**Appearance of dehydrated medium:** Free-flowing, homogeneous, beige.

**Appearance of prepared medium:** Clear, light amber.

**Expected cultural response:**

Control strain	Inoculum	Incubation	Growth on Tryptic Soy Agar
<i>Escherichia coli</i>	WDCM 00012	10 <sup>3</sup> -10 <sup>4</sup>	± 30% colonies of original count
<i>Staphylococcus aureus</i>	WDCM 00034	CFU	± 30% colonies of original count

Please refer to the actual batch related Certificate of Analysis (CoA).

**WARNING AND PRECAUTIONS**

**For professional use only.** Operators must be trained and have certain experience. Please read the instructions carefully before using this product. Reliability of assay results cannot be guaranteed if there are any deviations from the instructions in this document.

Consult the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

**DISPOSAL OF WASTE**

Disposal of waste must be carried out according to national and local regulations in force.

**BIBLIOGRAPHY**

See the references at the end of this document.

**TABLE OF SYMBOLS**

See the table of symbols at the end of this document.

**The product is available in the configurations listed below.** There may be additional product ref. numbers as well. For an updated listing of available products, visit [liofilchem.com](http://liofilchem.com)

Product	Format	Packaging	Ref.
Maximum Recovery Diluent	Tube	20 x 9 ml	20071
		100 x 9 ml	26071
	Plastic Tube	100 x 9 ml	26071P
	Bottle	6 x 90 ml	402660
		6 x 100 ml	402590
		6 x 200 ml	412400
		6 x 225 ml	412420
		25 x 225 ml	452420
	Bags	3 x 3 liters	499040
		3 x 5 liters	499045
	Dehydrated medium	500 g	610077
		100 g	620077

This IFU document and the SDS are available from the online Support Center:

[liofilchem.com/ifu-sds](http://liofilchem.com/ifu-sds)

**Version History**

Revision	Release Date	Change Summary
3	2024-10-22	Updated layout and content
2	2020-03-11	Updated ordering info