

CRYOPROTECTANT SOLUTION

(UNI EN 12353)

Cryoprotectant solution of bacteria, spore-forming bacteria, fungi.

DESCRIPTION

The Cryoprotectant Solution containing glycerol can be used for preservation of test organisms (bacteria, spore-forming bacteria, fungi).

COMPOSITION	g/L
Beef extract	3.0
Tryptone, pancreatic digest of casein	5.0
Glycerol	150.0

Final pH 6,9 ± 0,2 at 25°C

WARNING AND PRECAUTIONS

For in vitro diagnostic use.

Observe the precautions normally taken when handling laboratory reagents.

Prepared Medium: The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.

Safety Data Sheet is available on request for professional users.

All waste must be disposed of according to local directives.

STORAGE AND STABILITY

Prepared medium: 10-25°C

The product is stable until the expiration date indicated on the label under the recommended storage conditions.

PROCEDURE

- 1) Harvest cells from late log or early stationary growth. For most bacteria and yeast, approximately 10⁷/ml cells are required to ensure adequate recovery.
- 2) Add the **Cryoprotectant Solution** to the cell pellet or mix the solution with the cell suspension. Begin timing the equilibration period; for most cells, equilibration should occur for at least 15 minutes, but no longer than 45-60 minutes. The cryoprotective agent may be toxic to the cells if the equilibration time is too long.
- 3) Gently dispense the cell suspension into vials.
- 4) Begin cooling the cells after the appropriate equilibration time. (Different types of cells may require different cooling rates, however a uniform cooling rate of 1°C per minute from ambient temperature is effective for most types of cells).
- 5) Remove the cells from the cooling unit and place them at the appropriate storage temperature:

CELL TYPE	TEMPERATURE
Bacteria	-60°C (*)
Bacteriophage	-80°C
Fungi - Hyphae	-150°C
Fungi - Spores	-80°C
Yeast	-150°C

(*) While -60°C is adequate for most bacteria, some sensitive cells may not survive long periods of storage at this temperature.

6) To reconstitute, remove a vial from storage and place into a water bath at 37°C. When completely thawed, gently transfer the entire contents to fresh growth medium.

QUALITY CONTROL

Prepared medium: clear amber solution

REFERENCES

- UNI EN 12353:2013 – Chemical disinfectants and antiseptics – Preservation of test organisms used for the determination of bactericidal (including Legionella), mycobactericidal, sporicidal, fungicidal and virucidal (including bacteriophages) activity.
- Cryopreservation Manual Written by Frank P. Simone, M.S. of the American Type Culture Collection (ATCC) in cooperation with Nalge Nunc International Corp. ©Nalge Nunc International Corp. 1998
- Heckly, R.J. 1978. Preservation of microorganisms. *Advances in Applied Microbiology* 24: 1-53.
- ATCC Preservation Methods: Freezing and Freeze Drying. Ed. F.P. Simone and E.M. Brown, American Type Culture Collection, Rockville, Maryland, 1991.
- Simone, F.P., P.M. Daggett, M.S. MacGrath and M.T. Alexander. 1977. The use of plastic ampoules for freeze preservation of microorganisms. *Cryobiology* 14: 500-502.

PRESENTATION	Packaging	REF.
Prepared medium: CRYOPROTECTANT SOLUTION	12 x 200 mL bottles	63118

SYMBOLS



Read the instructions



Biological hazard



CE Mark (product complies with the requirements of Regulation (EU) 746/2017)



Temperature limitation



Use by



For in vitro diagnostic use



Manufacturer