


Buffered Saline Solutions

For various human clinical samples

Pub. No. MAN0018562 Rev. 1.0

 **WARNING!** Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from [thermofisher.com/support](https://www.thermofisher.com/support).

Intended Use

For *in vitro* diagnostic use

Buffered saline solutions are isotonic saline solutions used to maintain pH and osmotic balance as well as provide cells with water and essential inorganic ions. Buffered saline solutions are used in a variety of laboratory applications, such as washing cells, transporting cells, diluent of human biological samples, or for reagent preparation. Thermo Fisher Scientific offers a wide range of buffered saline solutions including those with and without; calcium chloride, magnesium chloride, magnesium sulfate, and phenol red.

Buffered saline solutions are for professional use. They are used in medical laboratories by personnel who have received specialized education and training with regard to procedures utilizing In Vitro Diagnostic products. IVD products of this type are not intended as sole determinant in a diagnostic situation. Test results are interpreted by a healthcare professional as part of the clinical management of a patient.

Principle and explanation of procedure

Isotonic solutions are generally utilized to maintain cells for a short period time in a viable condition while the cells are manipulated outside of their regular growth environment. A physiological pH (6.8 to 7.4) value can be important to maintain viability when investigating human biological samples in an *in vitro* diagnostic application. Isotonic solutions can also be used for rinsing and washing steps in various diagnostic procedures (1-4).

Contents and storage

All quality control testing results are reported on lot-specific Certificate of Analysis available on our website: [thermofisher.com](https://www.thermofisher.com).

Product	Cat. No.	Storage	Shelf life ^[1]
Phosphate Buffered Saline (PBS) 7.4 (1X)	10010001 ^[2] 10010002 ^[2]	15°C to 30°C	12 months
Phosphate Buffered Saline (PBS) 7.4 (1X)	10010023 ^[3] 10010031 ^[2] 10010049 ^[3] 10010072 ^[2]	15°C to 30°C	24 months
Phosphate Buffered Saline (PBS) 7.4 (1X)	10010015 ^[4]	15°C to 30°C	36 months
Phosphate Buffered Saline (PBS) 7.2 (1X)	20012019 ^[4]	15°C to 30°C	36 months
Phosphate Buffered Saline (PBS) 7.2 (1X)	20012027 ^[2] 20012043 ^[2] 20012050 ^[2] 20012099 ^[2]	15°C to 30°C	24 months
Phosphate Buffered Saline (PBS) 7.4 (10X)	70011036 ^[4] 70011044 ^[2] 70011069 ^[2]	15°C to 30°C	24 months
Phosphate Buffered Saline (PBS) 7.2 (10X)	70013016 ^[4]	15°C to 30°C	36 months





For In Vitro Diagnostic Use.


Product	Cat. No.	Storage	Shelf life ^[1]
Phosphate Buffered Saline (PBS) 7.2 (10X)	70013032 ^[2] 70013073 ^[2]	15°C to 30°C	24 months
Dulbecco's Phosphate Buffered Saline (DPBS) (1X) [+] Calcium Chloride [+] Magnesium Chloride	14040083 ^[4] 14040091 ^[4] 14040141 ^[2] 14040133 ^[2] 14040117 ^[3] 14040097 ^[2] 14040182 ^[2] 14040216 ^[3]	2°C to 8°C	36 months
Dulbecco's Phosphate Buffered Saline (DPBS) (1X) [-] Calcium Chloride [-] Magnesium Chloride	14190086 ^[4] 14190094 ^[4] 14190144 ^[3] 14190136 ^[3] 14190230 ^[4] 14190250 ^[3] 14190235 ^[3]	15°C to 30°C	36 months
Dulbecco's Phosphate Buffered Saline (DPBS) (1X) [-] Calcium Chloride [-] Magnesium Chloride	14190342 ^[3] 14190359 ^[2] 14190367 ^[3]	15°C to 30°C	12 months
Dulbecco's Phosphate Buffered Saline (DPBS) (1X) [-] Calcium Chloride [-] Magnesium Chloride	14190240 ^[4]	15°C to 30°C	24 months
Dulbecco's Phosphate Buffered Saline (DPBS) (10X) [-] Calcium Chloride [-] Magnesium Chloride	14200059 ^[4] 14200067 ^[4] 14200075 ^[2] 14200166 ^[2]	15°C to 30°C	36 months
Dulbecco's Phosphate Buffered Saline (DPBS) (10X) [+] Calcium Chloride [+] Magnesium Chloride	14080048 ^[4] 14080055 ^[2] 14080098 ^[2]	2°C to 8°C	24 months
Hanks' Balanced Salt Solution (HBSS) (1X) [+] Calcium Chloride [+] Magnesium Chloride [-] Phenol Red	14025050 ^[4] 14025092 ^[2] 14025076 ^[2] 14025134 ^[2] 14025126 ^[2]	15°C to 30°C	36 months
Hanks' Balanced Salt Solution (HBSS) (1X) [+] Calcium Chloride [+] Magnesium Chloride [+] Phenol Red	24020083 ^[4] 24020091 ^[4] 24020117 ^[2] 24020198 ^[2]	15°C to 30°C	36 months
Hanks' Balanced Salt Solution (HBSS) (1X) [-] Calcium Chloride [-] Magnesium Chloride [-] Magnesium Sulfate [+] Phenol Red	14170120 ^[2] 14170112 ^[2] 14170097 ^[2] 14170161 ^[2]	15°C to 30°C	36 months

Product	Cat. No.	Storage	Shelf life ^[1]
Hanks' Balanced Salt Solution (HBSS) (1X) [-] Calcium Chloride [-] Magnesium Chloride [-] Magnesium Sulfate [-] Phenol Red	14175046 ^[4] 14175053 ^[4] 14175095 ^[2] 14175079 ^[2] 14175103 ^[2] 14175145 ^[2]	15°C to 30°C	36 months
Hanks' Balanced Salt Solution (HBSS) (1X) [-] Calcium Chloride [-] Magnesium Chloride [+] Phenol Red [+] Sodium Bicarbonate	14170070 ^[4] 14170088 ^[4]	15°C to 30°C	36 months
Hanks' Balanced Salt Solution (HBSS) (10X) [-] Sodium Bicarbonate	14060040 ^[4]	15°C to 30°C	36 months
Hanks' Balanced Salt Solution (HBSS) (10X) [-] Calcium Chloride [-] Magnesium Chloride	14180046 ^[4]	15°C to 30°C	36 months
Hanks' Balanced Salt Solution (HBSS) (10X) [-] Calcium Chloride [-] Magnesium Chloride [-] Sodium Bicarbonate [-] Phenol Red	14185045 ^[4]	15°C to 30°C	24 months
Hanks' Balanced Salt Solution (HBSS) (10X) [-] Sodium Bicarbonate [-] Phenol Red	14065056 ^[2] 14065098 ^[2]	15°C to 30°C	24 months
Hanks' Balanced Salt Solution (HBSS) (10X) [-] Sodium Bicarbonate [-] Phenol Red	14065049 ^[4]	15°C to 30°C	36 months
Hanks' Balanced Salt Solution (HBSS) (10X) [-] Calcium Chloride [-] Magnesium Chloride [-] Magnesium Sulfate	14185052 ^[2] 14185098 ^[2]	15°C to 30°C	24 months
Earle's Balanced Salt Solution (EBSS) (1X) [-] Calcium Chloride [-] Magnesium Chloride [-] Phenol Red	14155048 ^[4] 14155063 ^[2] 14155098 ^[2]	15°C to 30°C	36 months
BME, Basal Medium (Eagle) (1X) [+] Earle's Salts [+] Phenol Red [-] L-glutamine [-] HEPES	41010026 ^[4]	2°C to 8°C Protect from light	12 months
HEPES Buffer Solution 1 M	15630049 ^[4] 15630056 ^[4]	2°C to 8°C	24 months

^[1] Shelf life is determined from Date of Manufacture. Do not use beyond the labelled expiration date.

^[2]  Manufacturer: Life Technologies Corporation | 3175 Staley Road | Grand Island, NY 14072

^[3]  Dual manufactured.

^[4]  Manufacturer: Life Technologies™ Ltd. | 3 Fountain Drive, Inchinnan Business Park | Paisley PA49RF, Scotland, United Kingdom | Tel: +44 (0)141 81416305

Precautions

Do not use the product if packaging, including bottles and vials, have been compromised and/or show evidence of microbial contamination, cloudy appearance, discoloration, drying, cracking, or other signs of deterioration.



CAUTION! Human samples are potentially biohazardous. Follow standard precautions for handling, storage and disposal.



WARNING! Do not use for injection or infusion! Please report any serious incidents in relation to the device to the manufacturer and the Competent Authority of the EU Member State in which the user and/or patient is established.

- Once opened, use Buffered Saline Solutions within 14 days for maximal growth performance.
- Avoid repeated warming/cooling and prolonged exposure to light.
- Do not use beyond labeled expiration date.
- All solutions that come into contact with clinical samples must be sterile. Always use proper aseptic techniques and work inside a laminar flow hood. Consult our **Gibco Cell Culture Basics** for aseptic handling.

Test protocol

Buffered saline solutions have many different uses in diagnostic protocols such as cell washing, diluents or as transport media. Refer to the appropriate procedures. Several procedures and applications are provided in the references.

Cellular suspensions prepared in a buffered saline solution should not be stored longer than several hours as cellular viability may decrease. Therefore, the suitability of the buffered saline solution for a specific cell type should be tested prior to use.

Quality control

Standard evaluations for cell culture media are pH, osmolality, endotoxins and sterility testing for liquid products. All quality control testing results are reported on lot specific Certificate of Analysis available on our website: thermofisher.com.

References

1. Lennette EH, Halonen P and Murphy FA . Laboratory Diagnosis of Infectious Disease - Principles and Practices (1988).Springer, New York, p.43.
2. WHO Manual for the laboratory diagnosis and virological surveillance of influenza, 2011.
3. Winn, W. C., & Koneman, E. W. (2006). Koneman's color atlas and textbook of diagnostic microbiology (6th ed.). Philadelphia: Lippincott Williams & Wilkins.
4. WHO Guidelines on the Establishment of Virology Laboratories in Developing Countries, 2008.

Labeling symbols

The symbols present on the product label are explained in the following table.

	MANUFACTURER		USE BY
	IN VITRO DIAGNOSTIC MEDICAL DEVICE		CONSULT INSTRUCTIONS FOR USE
	CATALOG NUMBER		CAUTION, CONSULT ACCOMPANYING DOCUMENTS
	BATCH CODE		UPPER AND LOWER LIMITS OF TEMPERATURE
	Sterilized using aseptic processing technique		PROTECT FROM LIGHT
	European Mark of Conformity		AUTHORISED REPRESENTATIVE IN THE EUROPEAN COMMUNITY

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale at www.thermofisher.com/us/en/home/global/terms-and-conditions.html. If you have any questions, please contact Life Technologies at www.thermofisher.com/support.



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Manufacturer:
Dual manufactured products

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Revision history: Pub. No. MAN0018473

Revision	Date	Description
1.0	12 November 2019	New document

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