

MATERIAL SAFETY DATA SHEET (MSDS)

PRODUCT: Cell washing solution

Product category	Packaging Specification	Reference (Product code)
PBS OTS®	500 mL bottle	102

Date Prepared: 08/01/2026

Version: 1.0

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

- **Product Name:** Cell washing solution
- **Manufacturer/Supplier:** VNUHCM-US Stem Cell Institute
- **Address:** B2-3 Building, University of Science, quarter 6, Linh Xuan Ward, Ho Chi Minh City
- **Emergency Telephone:** (+84) 28 3636 1206
- **Intended Use:** Single-use medical device for the collection, anti-coagulation, filtration, and preparation of autologous blood samples for PRP extraction procedures.

SECTION 2: HAZARDS IDENTIFICATION

- **Classification:** Sterile buffer solution, does not contain highly toxic substances.
- **Primary Hazard Warnings:**
 - Causes mild eye and skin irritation.
 - No significant risk of fire, explosion, or acute toxicity.
- **GHS Warning Symbol(s):** "Warning" symbol (exclamation mark) for eye and skin irritation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- **Main Ingredients:**
 - Sodium chloride (NaCl)
 - Disodium phosphate (Na₂HPO₄)
 - Monopotassium phosphate (KH₂PO₄)
 - Sterile distilled water
- **Typical Concentration:** NaCl 137 mM, KCl 2.7 mM, Na₂HPO₄ 10 mM, KH₂PO₄ 1.8 mM, pH ~7.4.

SECTION 4: FIRST AID MEASURES

- **Inhalation:** Move to fresh air. If breathing is difficult, seek medical attention.
- **Skin Contact:** Wash immediately with plenty of water and soap.
- **Eye Contact:** Rinse eyes under gently flowing water for at least 15 minutes. Seek medical attention if irritation persists.
- **Ingestion:** Rinse mouth and drink plenty of water. Do NOT induce vomiting. Consult a physician if necessary.

SECTION 5: FIRE-FIGHTING MEASURES

- **Suitable Extinguishing Media:** Use appropriate extinguishers (dry powder, CO₂, water).
- **Specific Hazards:** None.
- **Protective Equipment for Firefighters:** Use self-contained breathing apparatus (SCBA) and flame-retardant protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Precautions:** Wear gloves, safety goggles, and a lab coat.
- **Environmental Precautions:** Prevent spilled liquid from entering drainage systems.
- **Clean-up Methods:** Absorb with inert material (absorbent paper, sand). Wipe the area clean with water.

SECTION 7: HANDLING AND STORAGE

- **Handling:** Use aseptic technique as required. Avoid direct contact with skin and eyes.
- **Storage:** Store at room temperature. Avoid direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- **Engineering Controls:** Use in a well-ventilated area.
- **Personal Protective Equipment (PPE):**
 - **Eye/Face Protection:** Safety goggles.
 - **Skin/Hand Protection:** Laboratory gloves.
 - **Respiratory Protection:** Not required under normal conditions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Clear liquid solution.
- **Color:** Colorless.
- **Odor:** Odorless.
- **pH:** 7.2 – 7.7
- **Osmolality (mOsm/kg):** 265 – 310

- **Endotoxin (EU/mL):** ≤ 0.5
- **Mycoplasma:** Negative
- **Sterility:** Negative
- **Specific Gravity:** ~ 1.0 g/mL
- **Solubility:** Completely soluble in water.

SECTION 10: STABILITY AND REACTIVITY

- **Stability:** Stable under recommended storage conditions.
- **Conditions to Avoid:** High temperatures, direct sunlight.
- **Incompatible Materials:** Incompatible with strong oxidizing agents.
- **Hazardous Decomposition Products:** None.

SECTION 11: TOXICOLOGICAL INFORMATION

- **General Information:** Low toxicity.
- **Acute Toxicity:**
 - **Oral:** May cause gastrointestinal irritation.
 - **Dermal:** Mild irritation.
- **Irritation/Sensitization Potential:** May cause mild eye and skin irritation.

SECTION 12: ECOLOGICAL INFORMATION

- **Ecotoxicity:** Low toxicity to aquatic organisms.
- **Mobility:** Will not migrate if handled correctly.
- **Biodegradability:** Components are biodegradable.

SECTION 13: DISPOSAL CONSIDERATIONS

- **Waste Disposal Method:** Dispose of in accordance with local regulations for chemical waste. May be drained with plenty of water if permitted.

SECTION 14: TRANSPORT INFORMATION

- **UN/ID Number:** Not classified as dangerous goods.
- **Proper Shipping Name:** Buffer solution.
- **Transport Hazard Class:** Not applicable.
- **Special Precautions:** None.

SECTION 15: REGULATORY INFORMATION

- **Safety and Health Regulations:** Complies with chemical safety regulations.
- **Environmental Regulations:** Complies with discharge regulations.

SECTION 16: OTHER INFORMATION

- **References:** Information based on current scientific knowledge and laboratory guidelines.
- **Revision Date:** 08/01/2026
- **Disclaimer:** This information is for reference purposes only. The user must evaluate and assume responsibility for compliance with applicable regulations and safe practices under their specific conditions.