

## MATERIAL SAFETY DATA SHEET (MSDS)

**PRODUCT:** Platelet-Rich Plasma Collection Tube (Containing ACD Anticoagulant and Separator Gel)

Product category	Packaging Specification	Reference (Product code)
Biothérapie Pure-PRP	01 tube (single pack)	808
	25 tubes/ box	808-25
	50 tubes/ box	808-50
	100 tubes/ box	808-100
Biothérapie LP-PRP	01 tube (single pack)	809
	25 tubes/ box	809-25
	50 tubes/ box	809-50
	100 tubes/ box	809-100
Biothérapie LR-PRP	01 tube (single pack)	810
	25 tubes/ box	810-25
	50 tubes/ box	810-50
	100 tubes/ box	810-100
Biothérapie Beauté PRP	01 tube (single pack)	840
	25 tubes/ box	840-25
	50 tubes/ box	840-50
	100 tubes/ box	840-100

**Date Prepared:** 08/01/2026

**Version:** 1.0

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

- **Product Name:** Platelet-Rich Plasma Collection Tube
- **Manufacturer/Supplier:** VNUHCM-US Stem Cell Institute
- **Address:** B2-3 Building, University of Science, quarter 6, Linh Xuan Ward, Ho Chi Minh City
- **Emergency Phone:** (+84) 28 3636 1206

- **Product Use:** Single-use medical device for collection, anticoagulation, and preparation of autologous blood samples for PRP extraction in various applications.

## SECTION 2: HAZARDS IDENTIFICATION

- **Classification:** Sterile product, contains anticoagulant chemicals.
- **Main Hazard Warnings:**
  - **Tube Contents:** Contact with internal liquid (ACD anticoagulant solution) may cause mild irritation to eyes and skin.
  - **After Blood Collection:** The tube containing human blood becomes a biological specimen with high infection risk (Biological Risk Group 2). **The primary hazard originates from the blood sample**, which may contain infectious pathogens such as Hepatitis B, C, HIV, etc.
  - **Tube Breakage:** May cause injury from glass/sharps and exposure to the blood sample.
- **GHS Warning Symbols:** Consider using the "Warning" (exclamation mark) symbol for the liquid and the "Biohazard" symbol for the tube after blood collection.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- **Construction:** Sterile plastic or medical glass tube, rubber stopper, vacuum.
- **Internal Chemical Composition (Anticoagulant/Additive Solution):**
  - **Name:** Acid Citrate Dextrose Solution, Group A (ACD-A).
  - **Main Components:** Sodium Citrate, Citric Acid, Dextrose in sterile distilled water.
  - **Function:** Prevents blood clotting by chelating Calcium ions.
- **Separator Gel Component:** An inert silicone gel with intermediate density, used to separate plasma and blood cell layers more effectively during centrifugation.

## SECTION 4: FIRST AID MEASURES

- **Inhalation:** Not applicable. Avoid inhaling aerosols or fumes from blood samples if the tube breaks.
- **Skin Contact:**
  - **With ACD solution:** Wash immediately with plenty of water and soap.
  - **With blood sample:** Wash immediately with plenty of water and antiseptic soap. Disinfect and follow the biological exposure protocol.
- **Eye Contact:** Rinse eyes immediately under gently flowing water or using an eyewash solution for at least 15 minutes. Hold eyelids open and roll eyes. Seek medical attention if irritation persists.
- **Ingestion:** Not applicable under normal conditions of use. If accidentally ingested, rinse mouth and drink plenty of water. Do NOT induce vomiting. Consult a physician.
- **General Note:** For any incident involving blood exposure, report immediately to the supervisor and follow the facility's exposure control procedure.

## SECTION 5: FIRE-FIGHTING MEASURES

- **Suitable Extinguishing Media:** Use fire extinguishers appropriate for surrounding materials (powder, CO<sub>2</sub>). Water spray can be used to cool containers.
- **Special Hazards:** In case of fire, plastic tubes may produce toxic fumes (carbon monoxide, smoke). No special explosion hazard.
- **Protective Equipment for Firefighters:** Use self-contained breathing apparatus (SCBA) and full protective firefighting gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Precautions:** Wear full PPE: chemical/water-resistant gloves, safety goggles, lab coat, medical mask. For large spills or high-risk splashes, use a face shield.
- **Environmental Precautions:** Contain the spill. Do not sweep with a broom.

- **Clean-up Methods:**
  1. Absorb liquid using inert absorbent material (paper towels, sand) designated for biohazard cleanup.
  2. Collect all contaminated material into a clearly labeled, leak-proof yellow infectious waste bag/container.
  3. Disinfect the spill area with a suitable disinfectant (e.g., 1% sodium hypochlorite, 70% ethanol) and leave for the required contact time.
  4. Wipe clean.
- **Note:** Handle broken fragments as medical sharps waste.

## **SECTION 7: HANDLING AND STORAGE**

- **Handling:** Use aseptic technique. Inspect tubes for cracks before use. Gently invert the tube several times immediately after blood collection to mix blood with anticoagulant. Handle all tubes containing blood as infectious specimens.
- **Storage:**
  - Store at room temperature: 15–27°C
  - Store in a cool, dry place, protected from direct sunlight.
  - Do not refrigerate.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

- **Engineering Controls:** Handle in a controlled environment (clean room, biological safety cabinet if aerosol risk exists). Have emergency eyewash stations available.
- **Personal Protective Equipment:**
  - **Eye/Face Protection:** Safety goggles or face shield when splash risk exists.
  - **Skin/Hand Protection:** Wear powder-free nitrile or latex medical gloves during blood draw and tube handling. Use a lab coat or medical uniform.
  - **Respiratory Protection:** Not required under normal conditions. Consider an N95 mask when working with large volumes of samples or in poorly ventilated areas.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Liquid solution in a sealed tube.
- **Color:** Clear solution, very pale yellow. Separator gel is usually opaque.
- **Odor:** Odorless or mild characteristic odor.
- **pH:** ACD solution is slightly acidic to neutral.
- **Boiling/Melting Point:** Not applicable for sealed tube product.
- **Specific Gravity:** ~1.0 - 1.1 g/mL (ACD solution).
- **Solubility:** Completely soluble in water.
- **Endotoxin (EU/mL):**  $\leq 1.0$
- **Sterility:** Negative

## SECTION 10: STABILITY AND REACTIVITY

- **Stability:** Stable under recommended storage conditions.
- **Conditions to Avoid:** High temperature, direct sunlight.
- **Incompatible Materials:** Incompatible with strong oxidizing agents. Citrate solution may chelate metal ions.
- **Hazardous Decomposition Products:** May produce carbon monoxide and other oxides upon combustion.

## SECTION 11: TOXICOLOGICAL INFORMATION

- **General Information:** ACD solution has low toxicity. The main risk arises from improper centrifugation that may rupture blood cells, creating mediators.
- **Acute Toxicity:**
  - **Oral (ACD solution):** 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. However, blood-containing items must be treated as medical waste.
- **Mobility:** Will not migrate into the environment if properly disposed of.
- **Biodegradability:** Organic components are biodegradable.

### SECTION 13: DISPOSAL CONSIDERATIONS

- **Waste Disposal Method:** Strictly comply with local and national medical waste regulations.
  - **Unused/Unopened tubes:** May be disposed of as regular industrial waste if uncontaminated.
  - **USED BLOOD COLLECTION TUBES (with or without blood sample):** **MUST** be treated as **INFECTIOUS WASTE**. Place in a sturdy, leak-resistant, clearly labeled yellow infectious waste bag/container for disposal via a sterilization process (autoclaving, incineration) at a licensed facility.
  - **Sharps (needles, broken glass):** Place in designated, puncture-resistant sharps containers.

### SECTION 14: TRANSPORT INFORMATION

- **UN/ID Number:** Not classified as dangerous goods for transport if empty and unused.
- **Proper Shipping Name:** Medical Devices.
- **Transport Hazard Class:** Not applicable.
- **Special Precautions:** Store in a cool, dry place, protected from direct sunlight. Store at room temperature: 15–27°C. Do not refrigerate. Avoid strong impacts.

### SECTION 15: REGULATORY INFORMATION

- **Safety and Health Regulations:** Comply with biosafety regulations and blood sample handling protocols (if applicable).

- **Environmental Regulations:** Comply with regulations for medical waste collection and disposal.

## **SECTION 16: OTHER INFORMATION**

- **References:** Information in this MSDS is based on medical guidelines for PRP and centrifugation procedures.
- **Revision Date:** 08/01/2026 (First version).
- **Disclaimer:** The information herein is based on current scientific knowledge and is provided for reference purposes. The user must independently assess and is responsible for compliance with applicable regulations and safe practices under their specific conditions. The manufacturer assumes no liability for misuse or improper handling of the product.