

# MATERIAL SAFETY DATA SHEET

## Company Identification

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## Identification of the Product

Product Name : SERODIA-HIV  
(Passive particle agglutination test for detection of HIV-1 antibodies)

Product size : 20x5, 55x4, 110x5

Product Code : 224557, 224564, 223024

## Composition /Information on Ingredients

Kit components : Reconstituting solution  
Sample Diluent  
Sensitized Particles  
Unsensitized Particles  
Positive Control

Ingredients : Phosphate buffer, etc.  
All reagents in the kit contain Sodium azide as a preservative.  
Reconstituting solution 0.1%  
Sample Diluent 0.1%  
Sensitized Particles 0.12% (after reconstituted)  
Unsensitized Particles 0.12% (after reconstituted)  
Positive Control 0.1%

Chemical formulae       $\text{NaN}_3$   
CAS number              26628-22-8  
Molecular weight        65.02

Sensitized particles are made of gelatin particles coated with inactivated HIV-1 antigens.

## Hazards Identification

Dangerous properties : 0.1% Sodium azide

Classification : T+, R classification

CAS number : 26628-22-8

Injurious properties : R22 Harmful if swallowed

Declaration : Xn

Hazard to the Environment : Unknown

### First-Aid Measures

- Eye contact : Promptly wash eyes with water for at least 15 minutes, seek medical advice.
- Skin contact : Wash skin with water thoroughly, seek medical advice.
- Inhalation : Unknown
- Ingestion : In case of accidentally swallowed, drink plenty of luke-warm water to try to throw it up. Immediate treatment is indispensable by a medical doctor.

### Fire-fighting Measures

- Extinguishing method : No restriction.
- Extinguishing agents : No restriction.
- Decomposition : Dangerous decomposition is not anticipated.

### Accidental Release Measures

- Safe work practices : If material is released or spilled, minimize exposure by using appropriate personal protective equipment. (Protective gloves, mask, protective clothing, safety glasses etc.)  
Keep unprotected persons away.
- Action to be taken on spillage : Sweep up carefully after diluting liquid with water. Dispose of spilled and contaminated material in accordance with the Waste Disposal Law and Local regulations.  
When surroundings include the acid, the oxidant, the heavy metal, phosphorus, sulfur, the halogen, and those compounds, etc., it removes promptly.

### Handling and Storage

- Handling : Wear personal protective equipment in order to avoid direct contact with material and wash after handling.  
Do not inhale and ingest. Practice general safety precautions.  
Do not handle with acid, oxidant, heavy metal, phosphorus, sulfur, halogen, and those compounds.
- Storage : Store between 2~10°C and Protect from direct sunlight.  
Do not freeze.
- Do not store together with : No restriction
- Further information about storage condition : Liquid is not inflammable. Liquid is not combustible.

### Exposure Controls/Personal Protection

- Control Concentration : The product does not contain any hazardous material with occupational exposure limits established by OSHA, ACGIH or NIOSH.
- Protective equipment
- Respiratory protection : No required.
  - Protective glasses : In case of handling human specimens, it is required.
  - Protective gloves : In case of handling human specimens, it is required.
  - Protective clothing : In case of handling human specimens, it is required.
  - Hygiene measures : Always maintain good housekeeping. Do not eat, drink or

store food and beverages in areas where chemicals are used.  
Wash hands before breaks and at the end of the work shift.

## Physical and Chemical Properties

### Reconstitution solution

Form	:	Liquid
Color	:	Slightly yellowish transparent liquid
Odor	:	Odorless
PH-value	:	6.90-7.40

### Change in condition

Boiling point/Boiling range :	Not determined
Flash point :	Not applicable
Flammability :	Product is not flammable.
Explosive Properties :	Product does not present an explosion hazard.
Oxidizing properties :	Not determined
Vapor pressure :	Not determined
Density at 20°C :	Not determined
Solubility in	Fully miscible
/Miscibility with water	
Partition coefficient :	Not determined
Viscosity :	Not determined
Vapour density :	Not determined
Evaporation rate :	Not determined

### Sample Diluent

Form	:	Liquid
Color	:	Slightly yellowish transparent liquid
Odor	:	Odorless
PH-value	:	6.90-7.40

### Change in condition

Boiling point/Boiling range :	Not determined
Flash point :	Not applicable
Flammability :	Product is not flammable.
Explosive Properties :	Product does not present an explosion hazard.
Oxidizing properties :	Not determined
Vapor pressure :	Not determined
Density at 20°C :	Not determined
Solubility in	Fully miscible
/Miscibility with water	
Partition coefficient :	Not determined
Viscosity :	Not determined
Vapour density :	Not determined
Evaporation rate :	Not determined

### Sensitized Particles

Form	:	Lyophilized
Color	:	Red-purplish lyophilized preparation
Odor	:	Odorless
PH-value	:	6.90-7.40(after reconstitution)

### Change in condition

Melting point/Melting range :	Not determined
Flash point :	Not applicable
Flammability :	Product is not flammable.

Explosive Properties	:	Product does not present an explosion hazard.
Oxidizing properties	:	Not determined
Vapor pressure	:	Not determined (after reconstitution)
Density at 20°C	:	Not determined (after reconstitution)
Solubility in	:	Fully miscible (after reconstitution)
/Miscibility with water		
Partition coefficient	:	Not determined (after reconstitution)
Viscosity	:	Not determined (after reconstitution)
Vapour density	:	Not determined (after reconstitution)
Evaporation rate	:	Not determined (after reconstitution)
<b>Unsensitized Particles</b>		
Form	:	Lyophilized
Color	:	Red-purplish lyophilized preparation
Odor	:	Odorless
PH-value	:	6.90-7.40 (after reconstitution)
Change in condition	:	
Melting point/Melting range :		Not determined
Flash point	:	Not applicable
Flammability	:	Product is not flammable.
Explosive Properties	:	Product does not present an explosion hazard.
Oxidizing properties	:	Not determined
Vapor pressure	:	Not determined (after reconstitution)
Density at 20°C	:	Not determined (after reconstitution)
Solubility in	:	Fully miscible (after reconstitution)
/Miscibility with water		
Partition coefficient	:	Not determined (after reconstitution)
Viscosity	:	Not determined (after reconstitution)
Vapour density	:	Not determined (after reconstitution)
Evaporation rate	:	Not determined (after reconstitution)
<b>Positive Control</b>		
Form	:	Liquid
Color	:	Slightly yellowish transparent liquid
Odor	:	Odorless
PH-value	:	7.20-8.50
Change in condition	:	
Boiling point/Boiling range :		Not determined
Flash point	:	Not applicable
Flammability	:	Product is not flammable.
Explosive Properties	:	Product does not present an explosion hazard.
Oxidizing properties	:	Not determined
Vapor pressure	:	Not determined
Density at 20°C	:	Not determined
Solubility in	:	Fully miscible
/Miscibility with water		
Partition coefficient	:	Not determined
Viscosity	:	Not determined
Vapour density	:	Not determined
Evaporation rate	:	Not determined

### Stability and Reactivity

Thermal decomposition /condition to be avoided	:	No decomposition if used according to specification
Dangerous reaction	:	It reacts with the acid and a poisonous and explosiveness hydronitric acid is generated. It reacts with the heavy metal etc. and an explosiveness compound is generated. An explosiveness chlorine azide is generated reacting with the hypochlorite by the existence of the acid. Organic azides that explodes easily by heating reacting with the acid halides is generated.
Condition that should be avoided	:	The mixture of the acid and the heavy metal is avoided.
Dangerous products of decomposition	:	No dangerous decomposition products known

### Toxicological Information

Toxicological information for the product is not determined.

Ingredients (100% pure substance)

Sodium azide

Acute toxicity	:	
Oral TDL <sub>0</sub> (human)	:	710 $\mu$ g/Kg
Oral LDL <sub>0</sub> (rat)	:	42 mg/Kg
Oral LD <sub>50</sub> (mouse)	:	27 mg/Kg
Oral LD <sub>50</sub> (rabbit)	:	10 mg/Kg
Dermal LD <sub>50</sub> (rabbit)	:	20 mg/Kg
Inhalant LC <sub>50</sub> (rat)	:	1050 ppm/hr (NH <sub>3</sub> )
Chronic Toxicity	:	Not determined
Sensitization	:	Not determined
Carcinogenicity	:	NIOSH is assumed for the doubt of carcinogenic to exist. ACGIH A4(Carcinogenic cannot be classified.)
Teratogenicity	:	Not determined
Reproduction toxicity	:	Not determined

### Ecological Information

Ecological information for the product is not determined.

Ingredients (100% pure substance)

Sodium azide

Ecotoxicity	:	Toxic to fish and other water-borne organisms. The LC <sub>50</sub> /96hr values for fish are less the 1mg/L.
Mobility	:	When released into the soil, this material is not expected to biodegrade. When released into the soil, this material is expected to leach into ground water.

### Disposal Considerations

Waste disposal route	:	Remains of reagent in the wastewater can be disposed of with large quantity of water to prevent from formation of explosive metal azides.
Disposal of empty packaging	:	Dispose of empty packs is local recycling or waste disposal routes if necessary, clean them with water beforehand.

Waste disposal must comply with local regulation. Contact local authorities for information

All used instruments and tools (e.g., pipettes and tubes), waste solutions, tips, papers, etc. should be decontaminated with 2% glutaraldehyde solution (for at least 1 hour), sodium hypochloride solution (effective chlorine concentration 1,000 ppm at least 1 hour) or incineration since test specimens may be contaminated with Hepatitis B virus or other viruses. After the said procedures, dispose of in accordance with local regulations.

### Transport Information

Transport regulations	:	Transportation of this product is not regulated according to the definition of hazardous in US DOT. Transportation of this product is also not regulated by IATA, ICAO, Canadian TDG or European ADR.
Indicate precaution	:	Store between 2~10°C. Do not freeze
Other information	:	Protect from direct sunlight and high temperature. Avoid damaging containers.

### Regulatory Information

Markings according to European guideline accordance with EEC directive 67/548/EEC and 99/45/EC.

The product has to be declared as hazardous according to 0.1% Sodium azide concentration.

Declaration: Xn

R-classification	22	Harmful to health after swallow
S-classification	2	Keep away from children
	13	Keep away from food, beverages and animal feed
	36	Wear protective clothing when working with the material
	46	After ingestion contact a doctor showing the bottle and label
	52	Do not use in any living or social rooms

### Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.