

## Safety Data Sheet

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: CBA-224  
 Product Name: CytoSelect™ 96-well Phagocytosis Assay (Zymosan)  
 Recommended Use: Laboratory Research Reagents

**MANUFACTURER:**

Cell Biolabs, Inc.  
 7758 Arjons Drive  
 San Diego, CA 92126

**EMERGENCY CONTACT:**


+1 858 271 6500  
 info@cellbiolabs.com

### SECTION 2. HAZARDS IDENTIFICATION

Fixation Solution (Part No. 122402): One bottle – 20.0 mL of 3.2% Buffered Formaldehyde Solution

**Classification:**

- Flammable solids, Category 2 (H228)
- Acute toxicity, Oral, Category 4 (H302)
- Acute toxicity, Inhalation, Category 4 (H332)
- Skin irritation, Category 2 (H315)
- Serious eye damage, Category 1 (H318)
- Skin sensitization, Category 1 (H317)
- Carcinogenicity, Category 2, (H351)
- Specific target organ toxicity - single exposure, Category 3, Respiratory system (H335)
- Acute aquatic toxicity, Category 3, (H402)
- Chronic aquatic toxicity, Category 3 (H412)

<b>Pictogram</b>	
<b>Signal Word</b>	Danger
<p><b>Hazard Statements:</b> Flammable solid (H228), Harmful if swallowed or inhaled (H302 + H332), Causes skin irritation (H315), May cause an allergic skin reaction (H317), Causes serious eye damage</p>	

(H318), May cause respiratory irritation (H335), Suspected of causing cancer (H351), Harmful to aquatic life with long lasting effects (H412).

**Precautionary Statements:** Obtain special instructions before use (P201), Do not handle until all safety precautions have been read and understood (P202), Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Ground/bond container and receiving equipment (P240), Use explosion-proof electrical/ventilating/lighting equipment (P241), Avoid breathing dust/fume/gas/mist/vapors/spray (P261), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271), Contaminated work clothing should not be allowed out of the workplace (P272), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell (P301 + P312), IF ON SKIN: wash with plenty of soap and water (P302 + P352), IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304 + P340), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305 + P351 + P338), Immediately call a POISON CENTER or doctor/physician (P310), Rinse mouth (P330), If skin irritation or rash occurs: Get medical advice/attention (P333 + P313), Take off contaminated clothing and wash before reuse (P362), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).

10X Permeabilization Solution (Part No. 122404): One tube – 1.5 mL of PBS/1% Triton X-100

Detection Buffer (Part No. 122406): One bottle – 10.0 mL


**Classification:**

Acute toxicity, Oral, Category 4 (H302)

Eye irritation, Category 2A (H319)

Acute aquatic toxicity, Category 2 (H401)

Chronic aquatic toxicity, Category 2 (H411)


<b>Pictogram</b>	
<b>Signal Word</b>	<b>Warning</b>
<p><b>Hazard Statements:</b> Harmful if swallowed (H302), Causes serious eye irritation (H319), Toxic to aquatic life with long lasting effects (H411).</p>	

**Precautionary Statements:** Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: call a POISON CENTER if you feel unwell. Rinse mouth (P301 + P312 + P330), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305 + P351 + P338), If eye irritation persists: get medical advice/attention (P337 + P313), Collect spillage (P391), Dispose of contents/container to an approved waste disposal plant (P501).

Stop Solution (Part No. 122408): One bottle – 12.0 mL

**Classification:**

Corrosive to metals, Category 1 (H290)  
Skin corrosion, Category 1A (H314)  
Serious eye damage, Category 1 (H318)  
Acute aquatic toxicity, Category 3 (H402)

<b>Pictogram</b>	
<b>Signal Word</b>	Danger
<p><b>Hazard Statements:</b> May be corrosive to metals (H290), Causes severe skin burns and eye damage (H314), Causes serious eye damage, (H318), Harmful to aquatic life (H402).</p>	
<p><b>Precautionary Statements:</b> Keep only in original container (P234), Do not breathe dust/fume/gas/mist/vapors/spray (P260), Wash skin thoroughly after handling (P264), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: Rinse mouth. Do NOT induce vomiting (P301 + P330 + P331), IF ON SKIN (or hair): take off immediately all contaminated clothing Rinse skin with water/shower (P303 + P361 + P353), IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER / doctor (P304 + P340 + P310), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), Wash contaminated clothing before reuse (P363), Absorb spillage to prevent material damage (P390), Store locked up (P405), Store in corrosive resistant stainless steel container with a resistant inner liner (P406), Dispose of contents/container to an approved waste disposal plant (P501).</p>	

Phagocytosis Inhibitor (Part No. 122006): One amber tube – 20 µL of 2 mM Cytochalasin D in DMSO

**Classification:**

Flammable liquids, Category 4 (H227)

<b>Pictogram</b>	None
<b>Signal Word</b>	Warning
<b>Hazard Statements:</b> Combustible liquid (H227)	
<b>Precautionary Statements:</b> Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Wear protective gloves/protective clothing/eye protection/face protection (P280), In case of fire: use dry sand, dry chemical or alcohol-resistant foam for extinction (P370 + P378), Store in a well-ventilated place and keep cool (P403 + P235), Dispose of contents/container to an approved waste disposal plant (P501).	

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Fixation Solution (Part No. 122402): One bottle – 20.0 mL of 3.2% Buffered Formaldehyde Solution

CHEMICAL NAME	CONCENTRATION	CAS #
Paraformaldehyde	3.2 %	30525-89-4

10X Permeabilization Solution ((Part No. 122404): One tube – 1.5 mL of PBS/1% Triton X-100

CHEMICAL NAME	CONCENTRATION	CAS #
Triton X-100	1%	9002-93-1

Detection Buffer (Part No. 122406): One bottle – 10.0 mL

CHEMICAL NAME	CONCENTRATION	CAS #
Triton X-100	0.5%	9002-93-1

Stop Solution (Part No. 122408): One bottle – 12.0 mL

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Hydroxide	2 N (5%)	1310-73-2

Phagocytosis Inhibitor (Part No. 122006): One amber tube – 20 µL of 2 mM Cytochalasin D in DMSO

CHEMICAL NAME	CONCENTRATION	CAS #
DMSO	100 %	67-68-5

#### SECTION 4. FIRST-AID MEASURES

- IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
- IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
- IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

#### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or CO<sub>2</sub>
- Special protective equipment: Self-contained breathing apparatus

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Evacuate area
- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
- Absorb with sand or vermiculite, sweep up, place in a bag and hold for waste disposal.
- Avoid raising dust.
- Ventilate area and wash spill site after material pickup is complete.

#### SECTION 7. SAFETY HANDLING AND STORAGE

- Should be handled by trained personnel observing good laboratory practices.
- Avoid breathing vapor.
- Avoid skin contact or swallowing.
- May cause allergic reaction in sensitized individuals.
- Store in properly labeled containers at temperature on label

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

- Engineering measures: Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product.
- Personal protective equipment: Face shield or safety glasses, gloves, protective clothing, suitable respiratory equipment in cases of inadequate ventilation.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Form: liquid
- Odor: no data available
- pH: no data available
- Boiling point / range: no data available
- Melting point / range: no data available
- Flash point: no data available
- Evaporation rate: no data available
- Vapor pressure: no data available
- Vapor density: no data available
- Relative density: no data available
- Water solubility: no data available
- Autoignition temperature: no data available
- Decomposition temperature: no data available
- Viscosity: no data available
- Explosive properties: no data available
- Oxidizing properties: no data available

## **SECTION 10. STABILITY AND REACTIVITY**

- Stability: no data available
- Reactivity: no data available
- Conditions to avoid: no data available
- Incompatible materials: no data available
- Decomposition products: no data available

## **SECTION 11. TOXICOLOGICAL INFORMATION**

- Acute toxicity
  - Formaldehyde: LD50 Oral 592 mg/kg (rat), LC50 Inhalation 1.070 mg/m<sup>3</sup> 4h (rat), LDLO Dermal 10.000 mg/kg (rat)
  - Triton X-100: LD50 oral 1.800 mg/kg (rat), LD50 dermal 8.000 mg/kg (rabbit)
  - NaOH: no data available
  - DMSO: LD50 Oral - rat - 14.500 mg/kg, LC50 Inhalation - rat - 4 h - 40250 ppm, LD50
- Skin corrosion/irritation
  - Formaldehyde: severe eye irritation (rabbit)
  - All other hazardous components: no data available
- Serious eye damage/irritation
  - Formaldehyde: severe eye irritation (rabbit)

- Triton X-100: Moderate eye irritation-24 h (rabbit)
- All other hazardous components: no data available
- Respiratory or skin sensitization
  - Formaldehyde: may cause allergic skin reaction
  - All other hazardous components: no data available
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

## **SECTION 12. ECOLOGICAL INFORMATION**

- Ecotoxicity
  - Formaldehyde: Toxicity to daphnia and other aquatic invertebrates: EC5- 42 mg/l 24h (Daphnia magna)
  - Triton X-100: Toxicity to Daphnia and other aquatic invertebrates- EC50 26 mg/L-48h (Daphnia)
  - NaOH: no data available
  - DMSO: Toxicity to fish: LC50 34.000 mg/l - 96 h (Pimephales promelas), LC50 35.000 mg/l - 96 h (Oncorhynchus mykiss); Toxicity to daphnia and other aquatic invertebrates: EC50 27.500 mg/l (Daphnia pulex); Toxicity to algae: EC50 > 400.000 mg/l - 96h (Lepomis macrochirus)
- Mobility: no data available
- Biodegradation: no data available
- Bioaccumulation: no data available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

For small quantities: Cautiously add to a large stirred excess of water. Adjust the pH to neutral. Flush the aqueous solutions down the drain with plenty of water.

## **SECTION 14. TRANSPORT INFORMATION - IATA**

- Hazard Class: 8
- Subsidiary Class: none
- Packing Group: II
- UN-No: UN1824

## **SECTION 15. REGULATORY INFORMATION**

- Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available
- Chemical safety assessment: no data available



## **SECTION 16. OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide for experienced personnel. Cell Biolabs, Inc. shall not be held liable for any damage resulting from the handling or from contact with the above product(s).

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