

**1. IDENTIFICATION Product Identification**

Product Name RayBright® Intracellular Staining Kit

Catalog Number 137-00007-100/137-00007-500

**Usage**

This product is furnished for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.

**Supplier Identification**

Company RayBiotech, Inc.  
3607 Parkway Lane, Suite 100  
Norcross, GA 30092  
USA  
Telephone 1-888-494-8555 (Toll Free); 770-729-2992  
Fax 770-206-2393  
Website [www.RayBiotech.com](http://www.RayBiotech.com)  
Email [info@raybiotech.com](mailto:info@raybiotech.com)

**Emergency Telephone Number**

Emergency Phone # 1-888-494-8555

---

**2. HAZARDS IDENTIFICATION Hazardous Ingredients**

1. dimethyl sulfoxide (DMSO)
2. Ethanol
3. paraformaldehyde, solution
4. brefeldin A
5. monensin

**OSHA/HCS status**

dimethyl sulfoxide: This material is considered hazardous by the OSHA Hazard Communication Standard

paraformaldehyde: This material is considered hazardous by the OSHA Hazard Communication Standard

brefeldin A: This material is considered hazardous by the OSHA Hazard Communication Standard

monensin: This material is considered hazardous by the OSHA Hazard Communication Standard

**GHS Label  
Elements  
Hazard  
Pictograms**



Signal Word                      danger

Response                      EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.  
 ACUTE TOXICITY: (oral, dermal, inhalation), categories 1,2,3  
 CARCINOGENICITY: categories 1A,1B,2  
 FLAMMABLE LIQUUID: Keep away from flames and hot surfaces. – No smoking.  
 GHS Response Phrases:  
 H300: Fatal if swallowed.  
 H371: May cause damage to organs.  
 H373: May cause damage to {organs} through prolonged or repeated exposure.

Storage                      Room temperature, prevent light.  
 Disposal                      Not applicable.

**Hazards not otherwise classified** None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS CAS Numbers/other identifiers**

<u>Ingredient Name</u>	<u>%</u>	<u>CAS Number</u>
dimethyl sulfoxide	100	7647-14-5
ethanol	75	64-17-5
Brefeldin A	0.5	20350-15-6
Monensin	0.5	22373-78-0
Paraformaldehyde	<5	30525-89-4

Any percentage shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

**4. FIRST-AID MEASURES Description of Necessary First Aid Measures**

Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Skin Contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing and clean shoes before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Potential Acute Health Effects**

Eye Contact	Risk of serious damage to eyes.
Skin Contact	No known significant effects or critical hazards
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	Irritating to mouth, throat and stomach.

**Over-Exposure Signs/Symptoms**

Eye contact:	Adverse symptoms may include pain or irritation, watering, redness.
--------------	---

**Notes to Physician**

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific Treatments**

No specific treatment

**Protection of First-Aiders**

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**5. FIRE FIGHTING MEASURES**

Extinguishing Media	Use an extinguishing agent suitable for the surrounding fire, such as water spray, carbon dioxide, dry chemical powder or appropriate foam. Prevent contact with skin and eyes.
Chemical Hazards from Fire	In a fire or if heated, a pressure increase will occur and the component containers may burst.

**6. ACCIDENTAL RELEASE MEASURES Personal Precautions, Protective Equipment and Emergency Procedures**

For Non-Emergency Personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For Emergency Responders	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-Emergency Personnel" above
Environmental Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Protective Equipment	Wear respirator, chemical safety goggles, rubber boots and rubber gloves.

**Methods and Materials for Containment and Cleaning Up**

Small Spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large Spill	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same

hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. STORAGE AND HANDLING Storage

Store at room temperature.

### Handling

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION Permissible Exposure Limits (PELs)

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriate Engineering Controls

Showers  
Eyewash stations  
Ventilation systems

### Protective Equipment

Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.

### Special Precautions

Not for human or drug use. Not for household use.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear to yellow
Odor	Odorless
Physical State	Liquid
pH	7.2 - 7.4
Boiling Point	N/A
Melting Point	N/A
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Specific Gravity	N/A
Evaporation Rate	N/A
Solubility in Water	N/A
Odor Threshold	N/A
Coefficient of Water/Oil Distribution	N/A

---

## 10. STABILITY AND REACTIVITY

Chemical Stability                      Stable under normal handling procedures.

Hazardous Reactions              Under normal conditions of storage and use, hazardous reactions will not occur

---

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Ingredient Name	Result	Species	Dose
dimethyl sulfoxide	LD50	Dermal Rat Oral Rat	40000 mg/kg 14500 mg/kg

**Carcinogenicity** Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

**Sensitization** Not Available

**Mutagenicity** Not available

**Reproductive Toxicity** Not Available

**Specific target organ toxicity (single exposure)** Not Available

**Specific target organ toxicity (repeated exposure)** Not available

**Aspiration hazard** Not available

**Likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**

**Eye contact** Causes serious eye irritation

**Inhalation** No known significant effects or critical hazards.

**Ingestion** Irritating to the mouth, throat, and stomach.

**Skin Contact** Skin irritant

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** Toxic to aquatic organisms, particularly those in fresh water.

**Persistence and degradability** No data available

**Bioaccumulation/accumulation** No data available

**Mobility in environmental media** No data available

**Other hazardous effects** May be harmful to the environment, particularly aquatic organisms.

**13. DISPOSAL CONSIDERATIONS**

**Disposal methods** Disposal should be in accordance with applicable national, state, and local laws and regulations. Local regulations may be more stringent than national or state requirements. Verify local and state regulations before discharging into public sewers or landfills. Do not dump into any body of water. Contact a licensed professional waste disposal service for appropriate methods of disposal.

**14. TRANSPORT INFORMATION**

**DOT** Not dangerous goods.

**IATA** Not dangerous goods.

**ADR** Not dangerous goods.

**15. REGULATORY INFORMATION**

<b>United States (TSCA)</b>	All ingredients are on the inventory or exempt from listing.
<b>Canada (DSL / NDSL)</b>	All ingredients are on the inventory or exempt from listing.
<b>SARA 302 Components</b>	All ingredients are on the inventory or exempt from listing
<b>SARA 313 Components</b>	All ingredients are on the inventory or exempt from listing
<b>SARA 311/312 Hazards</b>	No known hazards.
<b>California Prop. 65 Components</b>	This product does not contain any Proposition 65 chemicals.

**16. OTHER INFORMATION**

**Disclaimer**

The above information was obtained from sources available at the time of revision and believed to be accurate and reliable. The information included is not intended to be all inclusive and should only be used as a guide. RayBiotech shall not be held liable for any damage resulting from use, handling, or contact with the above product.

**Last Revised**

June 12, 2017

