

# Red Loading Buffer Pack

✓ 1 Pack

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rev. 01/19/12

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

**Description:** The Red Loading Buffer Pack is used to lyse cells for western blotting analysis.

**Solutions and Reagents:** Quantity 8 ml 3X Blue Loading Buffer and 1 ml 30X Reducing Agent

3X Red Loading Buffer Pack: 187.5 mM Tris-HCl (pH 6.8 at 25°C), 6% (w/v) SDS, 30% glycerol and 0.03% (w/v) phenol red. (Store at room temperature.)

30X Reducing Agent: 1.25 M dithiothreitol (DTT) (Store at -20°C.)

#### Directions for Use:

1. Prepare fresh 3X Reducing SDS Loading Buffer by adding 1/10 volume 30X DTT Reducing Agent to 1 volume of 3X SDS Loading Buffer.
2. Dilute 3X SDS Loading Buffer to a 1X solution using ddH<sub>2</sub>O. This product supplies enough 3X material to make 24ml of 1X solution.
3. Aspirate media from cultures; wash cells with 1X PBS; aspirate.
4. Lyse cells by adding 1X SDS Loading Buffer (100 µl per well of 6-well plate or 500 µl per plate of 10 cm<sup>2</sup> plate). Immediately scrape the cells off the plate and transfer the extract to a microcentrifuge tube. Keep on ice.
5. Sonicate for 10-15 seconds to shear DNA and reduce sample viscosity.
6. Heat a 20 µl sample to 95-100°C for 5 minutes; cool on ice.
7. Microcentrifuge for 2-5 minutes.
8. Load 20 µl onto SDS-PAGE gel (10 cm x 10 cm).

**Storage:** Reagents are stored at different temperatures (see "Solutions and Reagents").

# Material Safety Data Sheet (MSDS) for Blue/Red Loading Buffer Pack

rev. 01/19/12

## I. Identification:

**Product name:** Blue/Red Loading Buffer Pack

**Product Catalog Number:** 7722, 7723

**CAS number:** None

**Manufacturer Supplier:** Cell Signaling Technology  
3 Trask Lane  
Danvers, MA 01923 USA  
1-978-867-2300 TEL  
1-978-867-2400 FAX  
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## II. Composition/Information on Ingredients:

This product pack is composed of two solutions: (1) 3X Blue or Red Loading Buffer, containing either 0.01% bromophenol blue or 0.01% phenol red, and (2) 30X Reducing Agent.

According to 29 CFR 1910.1200(d), hazardous ingredients at less than <1% and carcinogens at less than < 0.1% are considered non-hazardous. This product contains the following hazardous ingredients:

### HAZARDOUS INGREDIENTS CONTAINED IN:

(1) 3X Red/Blue Loading Buffer	CAS#	PERCENT
Glycerol	56-81-5	≤ 50%
Sodium dodecyl sulfate	151-21-3	≤ 2 %
(2) 30X Reducing Agent		
Dithiothreitol	3483-12-3	19.28%

## III. Hazard Identification:

### Emergency Overview:

#### 3X Red/Blue Loading Buffer

**Caution:** May be harmful if swallowed. May be irritating to eyes, respiratory system, and skin. Avoid contact and inhalation.

**Target organ:** Kidneys.

#### 30X Reducing Agent

Toxic. Harmful. Irritating to eyes, respiratory system, and skin. Unpleasant odor.

**Target Organ:** Central Nervous System.

## IV. First Aid Measures:

**Inhalation:** If inhaled, remove to fresh air. If breathing is difficult, get medical attention.

**Ingestion:** If swallowed, rinse mouth with water provided person is conscious. Get medical attention.

**Skin Exposure:** In case of contact, wash skin with soap and water.

**Eye Exposure:** In case of contact with eyes, immediately flush eyes with water for at least 15 minutes. Get medical attention.

## V. Fire Fighting Measures:

**Flash Point:** Data not available.

**Autoignition Temperature:** Data not available.

**Fire extinguishing media:** Water spray, dry chemical, foam, or carbon dioxide.

**Firefighting:** Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

## VI. Accidental Release Measures:

Absorb liquid with an absorbent material. Transfer contaminated absorbent to a chemical waste container for disposal.

**VII. Handling And Storage:** Avoid inhalation, ingestions, and contact with eyes and skin. Avoid prolonged or repeated exposure.

**3X Red/Blue Loading Buffer:** Store at room temperature in tightly closed container.

**30X Reducing Agent:** Store at -20°C in tightly closed container.

## VIII. Exposure Controls/Personal

**Engineering Controls:** Maintain adequate ventilation, eye wash and quick-drench facilities in work area.

**Personal Protective Equipment:** Lab coat, chemical resistant gloves and chemical safety glasses.

**Occupational Exposure Limits:** Data not available.

## IX. Exposure Controls/Personal Protection:

	3X Red/Blue Loading Buffer	30X Reducing Agent
<b>Physical State:</b>	Red or blue liquid	Colorless liquid
<b>Odor</b>	Odorless	Unpleasant odor
<b>Boiling Point:</b>	Data not available	Data not available
<b>Melting Point:</b>	Data not available	Data not available
<b>Volatile Organic Compounds:</b>	Data not available	Data not available
<b>Solubility:</b>	Data not available	Data not available

## X. Stability and Reactivity:

**Stability:** Stable under recommended conditions.

**Hazardous Decomposition:** May form carbon dioxide and carbon monoxide.

**Conditions to avoid:** Bases, strong oxidizing agents, reducing agents, alkali metals.

## XI. Toxicological Information:

To the best of our knowledge, the chemical, physical, and toxicological properties of this solution have not been thoroughly investigated.

### 3X Red/Blue Loading Buffer:

May be irritating to eyes, skin, and respiratory system.

May be toxic if absorbed through skin or ingested.

May cause eye irritation.

**Target Organs:** Kidneys.

Prolonged exposure may cause nausea, headache, and vomiting.

### 30X Reducing Agent:

Causes irritation to eyes, skin, mucous membranes, and respiratory system.

May be harmful if absorbed through skin or ingested.

May cause eye irritation.

**Target Organs:** Central nervous system.

Exposure may cause CNS depression.

## XII. Ecological Information:

Data not available.

## XIII. Disposal Considerations:

Dispose of in accordance with federal, state and local environmental regulations.

## XIV. Transport Information:

**D.O.T:** This substance is considered non-hazardous for transport.

**IATA:** This substance is considered non-hazardous for air transport.

# Material Safety Data Sheet (MSDS) for Blue/Red Loading Buffer Pack



## XV. Regulatory Information:

### 3X Red/Blue Loading Buffer

**EU Regulations/Classifications/Labeling Information:** Not available for this product.

### US Regulatory Information:

**SARA listed components:** None

**TSCA components:** None

**DSL components:** None

**Canada (WHMIS):** DSL No, NDSL No.

### 30X Reducing Agent

**EU:** Harmful.

**USA:** Toxic

### US Regulatory Information:

**SARA listed components:** None.

**TSCA components:** None.

**DSL components:** None.

**Canada (WHMIS):** DSL No, NDSL No.

## XVI. Other Information:

This product is not intended for use in humans. It is sold only for research use by personnel familiar with chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and not rubbing eyes with hands while working in the laboratory. No other use is intended, and any other use may involve substantive hazards.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide for experienced personnel. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product. The burden of safe use of this material rests entirely with the user.