

PAGE #:1 OF 7	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :10/31/16
DOCUMENT #: F/RPI/QC 7.7.3-02	PRODUCT NAME: Protein Gel-Loading Dye for SDS-PAGE, 2X		RPI ITEM NO: P18100

### **SECTION 1 - CHEMICAL IDENTIFICATION**

PRODUCT NAME: Protein Gel-Loading Dye for SDS-PAGE, 2X  
 RPI CATALOG #: P18100  
 SUPPLIER'S NAME: Research Products International Corp.  
 SUPPLIERS ADDRESS: 410 N Business Center Drive Mount Prospect, IL 60056  
 EMERGENCY CONTACT: 1-800-424-9300  
 OTHER INFORMATION: 847-635-7330

### **SECTION 2 - HAZARDS IDENTIFICATION**

#### **2.1 Classification of the substance or mixture**

##### **GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

H315	Skin corrosion/irritation	Category 2
H319	Serious eye damage/eye irritation	Category 2

#### **2.2 GHS Label elements, including Hazard and Precautionary Statement(s)**

##### **Pictogram**



**Signal word: Warning**

##### **Hazard statement(s)**

H315	Causes skin irritation
H319	Causes Serious Eye irritation

##### **Prevention, Response, Storage and Disposal Precautionary Statement(s)**

P264	Wash skin thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see. on this label).
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash before reuse.

PAGE #:2 OF 7	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :10/31/16
DOCUMENT #: F/RPI/QC 7.7.3-02		PRODUCT NAME: Protein Gel-Loading Dye for SDS-PAGE, 2X	RPI ITEM NO: P18100

### **SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS #	EINECS #	Composition %
Water	7732-18-5	231-791-2	Q.S
Glycerol	56-81-5	200-289-5	< 12.0
Tris	77-86-1	201-064-4	< 1.0
Sodium Dodecyl Sulfate	151-21-3	205-788-1	< 5.0
Hydrochloric acid	7647-01-0	231-595-7	< 1.0
2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfo-1-naphthalenyl) azo]-, Trisodium salt	915-67-3	213-022-	< 2.0

### **SECTION 4 - FIRST-AID MEASURES**

#### **4.1 Description of first aid measures**

**General advice:** Consult a doctor and show this safety data sheet.

- i. **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
- ii. **In case of skin contact:** Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
- iii. **In case of eye contact:** Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
- iv. **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**4.3 Indication of immediate medical attention and special treatment needed:** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

### **SECTION 5 - FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**5.2 Special hazards arising from the substance or mixture:** Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>) Hydrogen chloride gas.

**5.3 Precautions for fire-fighters:** Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

**5.4 Further information:** No data available

### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:** Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid

PAGE #:3 OF 7	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :10/31/16
DOCUMENT #: F/RPI/QC 7.7.3-02		PRODUCT NAME: Protein Gel-Loading Dye for SDS-PAGE, 2X	RPI ITEM NO: P18100

breathing vapors, mist, dust or gas.

**6.2 Environmental precautions:** Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up:** Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

**6.4 Reference to other sections:** For required PPE see section 8. For disposal see section 13.

### **SECTION 7 - HANDLING AND STORAGE**

**7.1 Precautions for safe handling:** Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Store at room temperature.

**7.3 Specific end use(s):** Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

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

#### **8.1 Control parameters: Components with workplace control parameters**

Component	Quebec	Mexico OEL (TWA)	Ontario TWA EV	OSHA PEL
Glycerol	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	(Vacated) TWA: 10 mg/m <sup>3</sup> Vacated) TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric acid	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/ m <sup>3</sup> (Vacated) Ceiling: 5 ppm (Vacated) Ceiling: 7 mg/ m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/ m <sup>3</sup>

Component	Quebec	Mexico OEL (TWA)	Ontario TWA EV
Hydrochloric acid	Ceiling: 5 ppm Ceiling: 7.5 mg/ m <sup>3</sup>	Ceiling: 5 ppm Ceiling: 7 mg/ m <sup>3</sup>	CEV: 2ppm

- ❖ **ACGIH:** American Conference of Governmental Industrial Hygienists.
- ❖ **OSHA:** Occupational Safety and Health Administration.
- ❖ **NIOSH IDLH:** The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

#### **8.2 Exposure Controls**

PAGE #:4 OF 7	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :10/31/16
DOCUMENT #: F/RPI/QC 7.7.3-02	PRODUCT NAME: Protein Gel-Loading Dye for SDS-PAGE, 2X		RPI ITEM NO: P18100

- i. **Appropriate engineering controls:** Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

### 8.3 Personal protective equipment

- i. **Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- ii. **Skin protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166
- iii. **Body Protection:** Wear appropriate protective clothing. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- iv. **Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
- v. **Control of environmental exposure:** Do not let product enter drains

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance</b>	Purple Liquid	<b>Vapor Pressure</b>	No Data Available
<b>Odor</b>	Odorless	<b>Vapor Density</b>	No Data Available
<b>Odor Threshold</b>	No Data Available	<b>Relative Density</b>	No Data Available
<b>pH</b>	No Data Available	<b>Water Solubility</b>	No Data Available
<b>Melting / Freezing Point</b>	No Data Available	<b>Partition Coefficient</b>	No Data Available
<b>Initial Boiling Point Range</b>	No Data Available	<b>Auto-Ignition Temperature</b>	No Data Available
<b>Flash Point</b>	No Data Available	<b>Decomposition Temperature</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available	<b>Viscosity</b>	No Data Available
<b>Flammability (Solid, Gas)</b>	No Data Available	<b>Explosive Properties</b>	No Data Available
<b>Upper / Lower Flammability Or Explosive Limits</b>	No Data Available	<b>Oxidizing Properties</b>	No Data Available

## SECTION 10 - STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Incompatibilities:** Strong oxidizing agents.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LD50 Inhalation
Glycerin	12600 mg/kg ( Rat )	10 g/kg ( Rabbit )	570 mg/m3 ( Rat ) 1 h

<b>PAGE #:</b> 5 OF 7	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	<b>ISSUE DATE:</b> 12/15/14	<b>REV.:</b> 1 <b>REV Date :</b> 10/31/16
<b>DOCUMENT #:</b> F/RPI/QC 7.7.3-02		<b>PRODUCT NAME:</b> Protein Gel-Loading Dye for SDS-PAGE, 2X	<b>RPI ITEM NO:</b> P18100

Sodium Dodecyl Sulfate	1288 mg/kg ( Rat )	580 mg/kg ( Rabbit )	3900 mg/m3 ( Rat )-1 h
Tris (hydroxymethyl) aminomethane	5900 mg/kg ( Rat )	Not Listed	Not Listed
Hydrochloric acid	238 - 277 mg/kg ( Rat )	5010 mg/kg ( Rabbit )	1.68 mg/L ( Rat ) -1 h

### **SECTION 12 - ECOLOGICAL INFORMATION**

**Eco Toxicity:** The environmental impact of this product has not been fully investigated

<b>Component</b>	<b>Toxicity to fish</b>	<b>Toxicity to Algae</b>
Sodium Dodecyl Sulfate	LC50 15-18.9 mg/L Pimephales promelas 96 h	EC50 3.59 - 15.6 mg/L 96 h
	LC50 4.06-5.75 mg/L Lepomis macrochirus 96 h	
	LC50 4.2-4.8 mg/L Lepomis macrochirus 96 h	EC50 = 117 mg/L 96 h
	LC50 6.2-9.6 mg/L Pimephales promelas 96 h	
	LC50= 4.2 mg/L Oncorhynchus mykiss 96 h	EC50 = 53 mg/L 72 h
	LC50 13.5-18.3 mg/L Poecilia reticulata 96 h	
	LC50 5.8-7.5 mg/L Pimephales promelas 96 h	EC50 30 - 100 mg/L 96 h
	LC50 9.9-20.1 mg/L Brachydanio rerio 96 h	
	LC50 10.2-22.5 mg/L Pimephales promelas 96 h	
	LC50 8-12.5 mg/L Pimephales promelas 96 h	
	LC50= 4.5 mg/L Lepomis macrochirus 96 h	
	LC50= 4.62 mg/L Oncorhynchus mykiss 96 h	
	LC50 10.8-16.6 mg/L Poecilia reticulata 96 h	
	LC50 22.1-22.8 mg/L Pimephales promelas 96 h	
	LC50 4.3-8.5 mg/L Oncorhynchus mykiss 96 h	
LC50= 1.31 mg/L Cyprinus carpio 96 h		
LC50= 7.97 mg/L Brachydanio rerio 96 h		

<b>Component</b>	<b>Freshwater Fish</b>	<b>Water Flea</b>
Glycerol	51 - 57 mg/L LC50 96 h	500 mg/L EC50 > 24h
Hydrochloric acid	282 mg/L LC50 96 h	

#### **Mobility**

<b>Component</b>	<b>log Pow</b>
Glycerol	-1.76
Sodium Dodecyl Sulfate	1.6
2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfo-1-naphthalenyl)azo]-, Trisodium salt	1.63

**Persistence and degradability/Bioaccumulative potential:** No data available

PAGE #:6 OF 7	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date :10/31/16
DOCUMENT #: F/RPI/QC 7.7.3-02	PRODUCT NAME: Protein Gel-Loading Dye for SDS-PAGE, 2X		RPI ITEM NO: P18100

**Mobility in soil/Results of PBT and vPvB assessment:** No data available

**Other adverse effects:** No data available

**Chronic Toxicity:** There are no known carcinogenic chemicals in this product

### **SECTION 13 - DISPOSAL CONSIDERATIONS**

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

### **SECTION 14 - TRANSPORT INFORMATION**

DOT	TDG	IATA	IMDG/IMO
Not regulated	Not regulated	Not regulated	Not regulated

### **SECTION 15 - REGULATORY INFORMATION**

#### USA FEDERAL REGULATION SARA 311/312 HAZARDOUS CATEGORIZATION

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release Of Pressure Hazard	Reactive Hazard
Yes	No	No	No	No

#### SARA 313

Component	CAS#	Weight %	SARA 313 – Threshold Values %
Hydrochloric acid	7647-01-0	< 1	1.0

#### Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Hydrochloric acid	Listed		-

#### Clean Water Act

Component	CWA - Hazardous Substances	CWA – Reportable Quantities
Hydrochloric acid	Listed	5000 lbs

**CERCLA:** This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Hydrochloric acid	5000 lb	5000 lb

<b>PAGE #:</b> 7 OF 7	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	<b>ISSUE DATE:</b> 12/15/14	<b>REV.:</b> 1 <b>REV Date :</b> 10/31/16
<b>DOCUMENT #:</b> F/RPI/QC 7.7.3-02	<b>PRODUCT NAME:</b> Protein Gel-Loading Dye for SDS-PAGE, 2X		<b>RPI ITEM NO:</b> P18100

**OSHA:** Occupational Safety and Health Administration

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Hydrochloric acid	-	TQ:5000 lb

**California Proposition 65:** This product does not contain any Proposition 65 chemicals

**HMIS Rating**

Health hazard	Chronic Health Hazard	Flammability	Physical Hazard
<b>1</b>		<b>0</b>	<b>0</b>

**NFPA Rating**

Health hazard	Flammability	Reactivity Hazard
<b>0</b>	<b>0</b>	<b>0</b>

**STATE RIGHT TO KNOW**

Component	Massachusetts	New Jersey	Pennsylvania	Rhode Island	Illinois
Water	-	-	Listed	-	-
Glycerol	Listed	Listed	Listed	Listed	-
Hydrochloric acid	Listed	Listed	Listed	Listed	Listed

**US DEPARTMENT OF TRANSPORTATION**

REPORTABLE QUANTITY (RQ)	DOT MARINE POLLUTANT	DOT SEVER MARINE POLLUTANT
<b>No</b>	<b>No</b>	<b>No</b>

**U.S. DEPARTMENT OF HOMELAND SECURITY:** This product contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Hydrochloric acid	0 lb STQ (anhydrous); 11250 lb STQ (37% concentration or greater)

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

**This SDS complies with the requirements of Regulation (EC).**

**SECTION 16 - OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Research Products International Corp. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. This product is sold for laboratory research and development purposes use only.