

**Safety Data Sheet (SDS)** According to the REACH Regulation (EC) No. 1907/2006

**Issuing Date:** 2018-05-07

**Revision Date:** 2024-12-06

**Version:** 2

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product No** 7723  
**Product name** Red Loading Buffer Pack  
**Kit Component** 67068: 3X Red Loading Buffer  
 14265: 30X Reducing Agent

### Contains

Chemical name	Index No.	CAS No
glycerol (30 - 40%)	Not Listed	56-81-5
(R*,R*)-1,4-dimercaptobutane-2,3-diol (10 - 20%)	Not Listed	3483-12-3
sodium dodecyl sulphate (0 - 10%)	Not Listed	151-21-3

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** For Research Use Only. Not for Use in Diagnostic Procedures.

### 1.3. Details of the supplier of the safety data sheet

Importer	Manufacturer
Cell Signaling Technology Europe B.V.	Cell Signaling Technology, Inc.
Dellaertweg 9b	3 Trask Lane
2316 WZ Leiden	Danvers, MA 01923
The Netherlands	United States
TEL: +31 (0)71 7200 200	TEL: +1 978 867 2300
FAX: +31 (0)71 891 0019	FAX: +1 978 867 2400

**Website** www.cellsignal.com  
**E-mail Address** info@cellsignal.eu

### 1.4. Emergency telephone number

**CHEMTREC** 24 hours a day, 7 days a week, 365 days a year  
 +1 703 527 3887 (INTERNATIONAL) +1 800 424 9300 (NORTH AMERICA)

**Europe** 112

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)

**2.2. Label elements****Signal word**

Warning

**Hazard statement(s)**

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

**Precautionary statement(s)**

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P280 - Wear protective gloves and eye/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.

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 it before reuse.

**2.3. Other hazards**

No information available.

For the full text of the H-phrases &amp; EUH-phrases mentioned in this Section, see Section 16

## SECTION 3. Composition/information on ingredients

**Kit Component****67068: 3X Red Loading Buffer**

WARNING: Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
glycerol	56-81-5	30-60	200-289-5	-	no data available
sodium dodecyl sulphate	151-21-3	5-10	205-788-1	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Acute Tox. 4 (H302) Acute Tox. 3 (H311)	no data available

**Kit Component****14265: 30X Reducing Agent**

WARNING: Causes skin irritation. Causes serious eye irritation.

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
(R*,R*)-1,4-dimercaptobutane-2,3-diol	3483-12-3	10 - <20	222-468-7	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General advice</b>	If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance. Do not breathe dust/fume/gas/mist/vapors/spray.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician. If breathing is irregular or stopped, administer artificial respiration.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately if irritation persists.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
<b>Protection of first-aiders</b>	Use personal protective equipment.

### 4.2. Most important symptoms and effects, both acute and delayed

Corrosive to the eyes and may cause irreversible eye damage. May cause skin, eye, and respiratory tract irritation.

### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes to physician</b>	Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
<b>Unsuitable Extinguishing Media</b>	No information available

### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

Should not be released into the environment. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

**6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Cover liquid spill with sand, earth or other noncombustible absorbent material. Pick up and transfer to properly labeled containers.

**6.4. Reference to other sections**

See Sections 8 & 13 for additional information.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Ensure adequate ventilation. Prevent the formation of vapors, mists and aerosols. Wash thoroughly after handling. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

**7.3. Specific end use(s)**

Use as a laboratory reagent.

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

Occupational exposure limit values					
Chemical name	European Union	United Kingdom	France	Spain	Germany
glycerol		STEL 30 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup>	TWA: 200 mg/m <sup>3</sup> Ceiling / Peak: 400 mg/m <sup>3</sup>
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
glycerol		TWA 10 mg/m <sup>3</sup>		TWA 20 mg/m <sup>3</sup>	
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
glycerol		SS-C** TWA 50 mg/m <sup>3</sup> STEL 100 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup>		

### 8.2. Exposure controls

#### **Appropriate engineering controls**

Showers, eyewash stations, and ventilation systems

#### **Individual protection measures, such as personal protective equipment**

##### **Eye/face protection**

Safety glasses with side-shields.

##### **Skin protection**

Wear protective gloves and protective clothing.

##### **Hand protection**

Impervious gloves.

##### **Other**

Wear suitable protective clothing.

##### **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

#### **Environmental Exposure Controls**

Do not allow material to contaminate ground water system

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Information on the known physical chemical properties of each component within Kit are given below. If not included, information is either not available or not applicable. Refer to individual kit component SDS for further information.

#### **Kit Component**

#### **67068: 3X Red Loading Buffer**

Physical state

Liquid

Color

Red

#### **Kit Component**

#### **14265: 30X Reducing Agent**

Physical state

Liquid

Appearance

Clear

Color

Colorless

Odor

Rotten-egg like

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

#### **Hazardous polymerization**

Hazardous polymerization does not occur.

#### **Hazardous reactions**

None under normal processing

### 10.4. Conditions to avoid

None known based on information supplied.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors: Sulfur oxides  
Sodium oxides  
Acrolein

## **SECTION 11: Toxicological information**

### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

#### **Product Information**

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

#### **Component Information**

<b>Chemical name</b>	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LC50 Inhalation</b>
glycerol	= 27200 mg/kg (Rat)	> 10 g/kg ( Rabbit )	> 5.85 mg/L ( Rat ) 4 h
(R*,R*)-1,4-dimercaptobutane-2,3-diol	400 mg/kg ( Rat )	-	-
sodium dodecyl sulphate	= 1288 mg/kg (Rat)	= 200 mg/kg ( Rabbit )	> 3900 mg/m <sup>3</sup> ( Rat ) 1 h

#### **Information on likely routes of exposure**

##### **Inhalation**

There is no data available for this product.

##### **Eye contact**

###### **Kit Component**

Eye contact

###### **67068: 3X Red Loading Buffer**

May cause irritation Avoid contact with eyes

###### **Kit Component**

Eye contact

###### **14265: 30X Reducing Agent**

May cause irritation Avoid contact with eyes

##### **Skin contact**

###### **Kit Component**

Skin contact

###### **67068: 3X Red Loading Buffer**

Irritating to skin

###### **Kit Component**

Skin contact

###### **14265: 30X Reducing Agent**

Irritating to skin

##### **Ingestion**

There is no data available for this product.

### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

#### **Symptoms**

Corrosive to the eyes and may cause irreversible eye damage. May cause skin, eye, and respiratory tract irritation.

#### **Skin and Eye Corrosion/Irritation**

###### **Kit Component**

Serious eye damage/eye irritation

Skin corrosion/irritation

###### **67068: 3X Red Loading Buffer**

Irritating to eyes

Irritating to skin

<b>Kit Component</b>	<b>14265: 30X Reducing Agent</b>
Serious eye damage/eye irritation	Irritating to eyes
Skin corrosion/irritation	Irritating to skin

<b>Sensitization</b>	No information available
<b>Mutagenic effects</b>	No information available.
<b>Carcinogenic effects</b>	No information available
<b>Reproductive toxicity</b>	No information available.
<b>Systemic Target Organ Toxicity (STOT)</b>	No information available
<b>Aspiration Hazard</b>	No information available.

**11.2. Information on other hazards**

<b>Other adverse effects</b>	No information available.
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**SECTION 12: Ecological information****12.1. Toxicity**

<b>Product Information</b>	No information available
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**Component Information**

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
glycerol	-	LC50 51 - 57 mL/L (Oncorhynchus mykiss) 96 h	-
sodium dodecyl sulphate	EC50 38 mg/L (Desmodesmus subspicatus) 96 h EC50 42 mg/L (Desmodesmus subspicatus) 96 h EC50 53 mg/L (Desmodesmus subspicatus) 72 h EC50 30 - 100 mg/L (Desmodesmus subspicatus) 96 h EC50 117 mg/L (Pseudokirchneriella subcapitata) 96 h EC50 3.59 - 15.6 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 15 - 18.9 mg/L (Pimephales promelas) 96 h LC50 8 - 12.5 mg/L (Pimephales promelas) 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 4.62 mg/L (Oncorhynchus mykiss) 96 h LC50 4.2 mg/L (Oncorhynchus mykiss) 96 h LC50 7.97 mg/L (Brachydanio rerio) 96 h LC50 9.9 - 20.1 mg/L (Brachydanio rerio) 96 h LC50 4.06 - 5.75 mg/L (Lepomis macrochirus) 96 h LC50 4.2 - 4.8 mg/L (Lepomis macrochirus) 96 h LC50 4.5 mg/L (Lepomis macrochirus) 96 h LC50 5.8 - 7.5 mg/L (Pimephales promelas) 96 h LC50 10.2 - 22.5 mg/L (Pimephales promelas) 96 h LC50 6.2 - 9.6 mg/L (Pimephales	EC50 1.8 mg/L (Daphnia magna) 48 h

		<p>promelas) 96 h  LC50 13.5 - 18.3 mg/L (Poecilia reticulata) 96 h  LC50 10.8 - 16.6 mg/L (Poecilia reticulata) 96 h  LC50 1.31 mg/L (Cyprinus carpio) 96 h</p>	
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**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential****Kit Component**

Bioaccumulation

**67068: 3X Red Loading Buffer**

Most components of this material are unlikely to bioaccumulate but some have not been tested

Chemical name	Octanol-Water Partition Coefficient
glycerol	-1.75
sodium dodecyl sulphate	1.6

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. Endocrine disrupting properties**

This product does not contain any known or suspected endocrine disruptors

**12.7. Other adverse effects**

No information available

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods****Waste from residues / unused products**

Dispose of in accordance with local regulations.

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Other information**

Waste codes should be assigned by the user based on the application for which the product was used.

## SECTION 14: Transport information

**IMDG/IMO****14.1 UN number**

Not regulated

**14.2 UN proper shipping name**

Not regulated

**14.3 Transport hazard class(es)**

Not regulated



<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	None
<b>14.6 Special precautions for user</b>	None
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not regulated

**ADR/RID**

<b>14.1 UN number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	None
<b>14.6 Special precautions for user</b>	None

**IATA**

<b>14.1 UN number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	None
<b>14.6 Special precautions for user</b>	None

## **SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)**

This product does not contain Substances of Very High Concern (SVHC).

**SEVESO Directive Information**

This product does not contain substances identified in the SEVESO Directive.

**International inventories**

<b>TSCA 8(b)</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	-
<b>IECSC</b>	Complies
<b>KECL</b>	-
<b>PICCS</b>	Complies
<b>AICS</b>	-

**International inventories legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out

## SECTION 16: Other information

### Full text of H-Statements referred to under Sections 2 and 3

H315 - Causes skin irritation

H318 - Causes serious eye damage

H411 - Toxic to aquatic life with long lasting effects

**Classification procedure:** Expert judgment and weight of evidence determination.

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### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.