

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

Issuing Date: 2018-10-30

Version: 1

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

### 1.1. Product identifier

<b>Product No</b>	9911
<b>Product name</b>	Phospho-Erk1/2 Pathway Sampler Kit
<b>Kit Component</b>	9427: Phospho-c-Raf (Ser338) (56A6) Rabbit mAb 9154: Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb 4370: Phospho-p44/42 MAPK (Thr202/Tyr204) (D13.14.4E) XP® Rabbit mAb 11989: Phospho-p90RSK (Ser380) (D3H11) Rabbit mAb 9595: Phospho-MSK1 (Thr581) Antibody 7074: Anti-rabbit IgG, HRP-linked Antibody
<b>Reach registration number</b>	This substance/mixture contains only ingredients which have been registered, or are exempt from registration, according to Regulation (EC) No. 1907/2006.

### Contains

Chemical name	Index No.	CAS No.
glycerol (>100%)	Not Listed	56-81-5
sodium azide (0 - 10%)	011-004-00-7	26628-22-8

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

<b>Identified uses</b>	For research use only
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### 1.3. Details of the supplier of the safety data sheet

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

<b>Website</b>	www.cellsignal.com
<b>E-mail Address</b>	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)

<b>Europe</b>	112
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## SECTION 2: Hazards identification

## 9911 Phospho-Erk1/2 Pathway Sampler Kit

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

This substance/mixture does not meet the criteria for classification in accordance with Regulation (EC) No. 1272/2008

### 2.2. Label elements

### 2.3. Other hazards

May produce an allergic reaction.

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

## SECTION 3. Composition/information on ingredients

#### Kit Component

The following kit components contain the ingredients listed in the table below:

4514: Phospho-SEK1/MKK4 (Ser257) (C36C11) Rabbit mAb  
4668: Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb  
2361: Phospho-c-Jun (Ser63) (54B3) Rabbit mAb

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 azide	26628-22-8	<0.2	247-852-1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)	no data available

#### Kit Component

The following kit components contain the ingredients listed in the table below:

7074: Anti-rabbit IgG, HRP-linked Antibody  
9595: Phospho-MSK1 (Thr581) Antibody

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

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

#### General advice

Use first aid treatment according to the nature of the injury. When symptoms persist or in all cases of doubt seek medical advice.

#### Inhalation

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur.

#### Skin contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

#### Eye contact

Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Get medical attention immediately if irritation persists.

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**Ingestion** Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

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

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

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

**Notes to physician** Treat symptomatically.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** None.

### **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**

**For non-emergency personnel** Avoid contact with skin, eyes and clothing. Use personal protective equipment. For personal protection see section 8.

**For emergency responders** Use personal protection recommended in Section 8.

### **6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert 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**

Wear personal protective equipment. See section 8. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

### **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)**

## 9911 Phospho-Erk1/2 Pathway Sampler Kit

Use as a laboratory reagent.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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>	Ceiling / Peak: 400 mg/m <sup>3</sup> TWA: 200 mg/m <sup>3</sup>
sodium azide	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> S*	STEL 0.3 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup> Skin	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> P*	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> S*	TWA: 0.2 mg/m <sup>3</sup> Ceiling / Peak: 0.4 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>	
sodium azide	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> Pelle*	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> Ceiling 0.29 mg/m <sup>3</sup> Ceiling 0.11 ppm C(A4) P*	Huid* STEL 0.3 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> iho*	TWA 0.1 mg/m <sup>3</sup> H*
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>		TWA 10 mg/m <sup>3</sup> STEL 30 mg/m <sup>3</sup>
sodium azide	H* STEL 0.3 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup>	TWA 0.2 mg/m <sup>3</sup> STEL 0.4 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup> STEL 0.1 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup> Skin

#### 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

###### Hand protection

Impervious gloves.

###### Other

Wear suitable protective clothing.

###### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

##### Environmental Exposure Controls

No information available.

### 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

Physical state

Appearance

Color

pH VALUE

Remarks

##### 9427: Phospho-c-Raf (Ser338) (56A6) Rabbit mAb

Liquid

Clear

Colorless

7.5

@ 20 °C

##### Kit Component

Physical state

##### 9154: Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb

Liquid

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Appearance Clear  
Color Colorless  
pH VALUE 7.5  
Remarks @ 20 °C

**Kit Component 4370: Phospho-p44/42 MAPK (Thr202/Tyr204) (D13.14.4E) XP® Rabbit mAb**  
Physical state Liquid  
Appearance Clear  
Color Colorless  
pH VALUE 7.5  
Remarks @ 20 °C

**Kit Component 11989: Phospho-p90RSK (Ser380) (D3H11) Rabbit mAb**  
Physical state Liquid  
Appearance Clear  
Color Colorless  
pH VALUE 7.5  
Remarks @ 20 °C

**Kit Component 9595: Phospho-MSK1 (Thr581) Antibody**  
Physical state Liquid  
Appearance Clear  
Color Colorless  
pH VALUE 7.5  
Remarks @ 20 °C

**Kit Component 7074: Anti-rabbit IgG, HRP-linked Antibody**  
Physical state Liquid  
Appearance Clear  
Color Colorless  
pH VALUE 7.5  
Remarks @ 20 °C

### 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

Extremes of temperature and direct sunlight. Over a period of time, sodium azide may react with copper, lead, brass, or solder in plumbing systems to form an accumulation of the HIGHLY EXPLOSIVE compounds of lead azide & copper azide.

#### 10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

#### 10.6. Hazardous decomposition products

Nitrogen oxides (NO<sub>x</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### 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

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
glycerol	= 12600 mg/kg (Rat)	> 10 g/kg ( Rabbit )	> 570 mg/m <sup>3</sup> ( Rat ) 1 h
sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg ( Rabbit ) = 50 mg/kg ( Rat )	-

#### Information on likely routes of exposure

<b>Inhalation</b>	Avoid breathing vapors or mists May cause irritation of respiratory tract
<b>Eye contact</b>	Avoid contact with eyes May cause slight irritation
<b>Skin contact</b>	Avoid contact with skin
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

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

<b>Symptoms</b>	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing
<b>Skin and Eye Corrosion/Irritation</b>	No information available
<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.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Product Information** No information available

#### 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	EC50 500 mg/L (Daphnia magna) 24 h
sodium azide	EC50 0.35 mg/L	LC50 0.8 mg/L (Oncorhynchus	LC100 1 mg/L (Orconectes rusticus)

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	(Pseudokirchneriella subcapitata) 96 h	mykiss) 96 h LC50 5.46 mg/L (Pimephales promelas) 96 h LC50 0.7 mg/L (Lepomis macrochirus) 96 h	96 h
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### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

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Chemical name	Octanol-Water Partition Coefficient
glycerol	-1.76

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

No information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>Other information</b>	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
14.4 Packing group	Not regulated
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated

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

### IATA

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated

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14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	None
14.6 Special precautions for user	None

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Candidate List of Substances of Very High Concern for Authorization Information

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

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

##### 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

H300 - Fatal if swallowed  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
EUH032 - Contact with acids liberates very toxic gas

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

**Issuing Date:** 2018-10-30

##### 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.