

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

Issuing Date: 2018-01-19

Version: 1

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

### 1.1. Product identifier

**Product No** 12321  
**Product name** PathScan® Phospho-Ret (panTyr) Chemiluminescent Sandwich ELISA Kit  
**Kit Component** Luminol/Enhancer Solution  
 Stable Peroxide Buffer  
 ELISA Wash Buffer (20X)  
 ELISA Sample Diluent  
 Cell Lysis Buffer (10X)

**When supplied with lyophilized antibodies:**  
 Green Detection Antibody (Lyophilized)  
 Green Detection Antibody Diluent  
 \*Red HRP-Linked Antibody (Lyophilized)  
 Red HRP Diluent

**When supplied with liquid antibodies:**  
 Green Detection Antibody (Liquid)  
 \*Red HRP-Linked Antibody (Liquid)

**\*Note: Some PathScan® ELISA Kits may include HRP-Linked Streptavidin in place of HRP-Linked Antibody.**

**Reach registration number** 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
polyethylene glycol	Not Listed	9002-93-1
p-(1,1,3,3-tetramethylbutyl)phenylether (10 - 20%)		
maleic acid (0 - 10%)	607-095-00-3	110-16-7
trometamol (0 - 10%)	Not Listed	77-86-1
Ethylene glycol (0 - 10%)	603-027-00-1	107-21-1
tetrasodium pyrophosphate, decahydrate (0 - 10%)	Not Listed	13472-36-1
sodium azide (0 - 10%)	011-004-00-7	26628-22-8
reaction mass of:	613-167-00-5	55965-84-9
5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (0 - 10%)		

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

**Identified uses** For research use only

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

**Importer (Applicable in EU only)**  
Cell Signaling Technology Europe B.V.  
Schuttersveld 2  
2316 ZA Leiden  
The Netherlands  
TEL: +31 (0)71 7200 200  
FAX: +31 (0)71 891 0098

**Manufacturer**  
Cell Signaling Technology, Inc.  
3 Trask Lane  
Danvers, MA 01923  
United States  
TEL: +1 978 867 2300  
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

<b>Skin corrosion/irritation</b>	Category 2 - (H315)
<b>Serious eye damage/eye irritation</b>	Category 1 - (H318)
<b>Skin sensitization</b>	Category 1 - (H317)
<b>Chronic aquatic toxicity</b>	Category 3 - (H412)

### 2.2. Label elements



**Signal word**  
Danger

#### Hazard statement(s)

H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H412 - Harmful to aquatic life with long lasting effects

#### Precautionary statement(s)

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P272 - Contaminated work clothing should not be allowed out of the workplace  
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  
P310 - Immediately call a POISON CENTER or doctor/physician  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P363 - Wash contaminated clothing before reuse

### 2.3. Other hazards

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

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**SECTION 3. Composition/information on ingredients**

**Kit Component Name** Luminol/Enhancer Solution

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
trometamol	77-86-1	1-3	201-064-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available
Ethylene glycol	107-21-1	1-3	203-473-3	Acute Tox. 4 (H302)	no data available

**Kit Component Name** ELISA Wash Buffer (20X)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	0.005-0.025	-	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	no data available

**Kit Component Name** ELISA Sample Diluent

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
sodium azide	26628-22-8	<0.1	247-852-1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)	no data available

**Kit Component Name** Cell Lysis Buffer (10X)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	9002-93-1	10	618-344-0	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	no data available
trometamol	77-86-1	1.79	201-064-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available
tetrasodium pyrophosphate, decahydrate	13472-36-1	0.1-1	-	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

**Kit Component Name** Green Detection Antibody Diluent

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
trometamol	77-86-1	0.5	201-064-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available
sodium azide	26628-22-8	<0.1	247-852-1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400)	no data available

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				Aquatic Chronic 1 (H410) (EUH032)	
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### Kit Component Name Red HRP Diluent

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
trometamol	77-86-1	0.5	201-064-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	0.005-0.025	-	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	no data available

### Kit Component Name Green Detection Antibody (Liquid)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
trometamol	77-86-1	0.5	201-064-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available
sodium azide	26628-22-8	<0.1	247-852-1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)	no data available

### Kit Component Name \*Red HRP-linked Antibody (Liquid)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
trometamol	77-86-1	0.5	201-064-4	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	0.005-0.025	-	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	no data available

**Kit Component Name** Green Detection Antibody (Lyophilized), \*Red HRP-Linked Antibody (Lyophilized), Stable Peroxide Buffer.

This product does not contain substances at concentrations requiring disclosure under (EC) No. 1907/2006 (REACH).

## 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.

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<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation or rash occurs: Get medical advice/attention.
<b>Eye contact</b>	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>Ingestion</b>	Get medical attention. Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.
<b>Protection of first-aiders</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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

Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms:

Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Contains an animal derived biological. May produce an allergic reaction in susceptible individuals. 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** 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**

**For non-emergency personnel** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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

**Other information** Refer to protective measures listed in Sections 7 and 8.

### **6.2. Environmental precautions**

Do not allow material to contaminate ground water system. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

### **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** Take up mechanically and collect in suitable container for disposal. Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Clean contaminated surface

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thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

### 6.4. Reference to other sections

See Sections 8 & 13 for additional information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Keep away from food, drink and animal feeding stuffs. Wear suitable gloves and eye/face protection.

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

Keep away from direct sunlight. Keep containers tightly closed in a dry, cool 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
Ethylene glycol	TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> S*	STEL 40 ppm STEL 104 mg/m <sup>3</sup> STEL 30 mg/m <sup>3</sup> TWA 20 ppm TWA 52 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> Skin	TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> P*	TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> S*	TWA: 10 ppm TWA: 26 mg/m <sup>3</sup> Skin Ceiling / Peak: 20 ppm Ceiling / Peak: 52 mg/m <sup>3</sup>  H*
tetrasodium pyrophosphate, decahydrate		STEL 15 mg/m <sup>3</sup> TWA 5 mg/m <sup>3</sup>	TWA 5 mg/m <sup>3</sup>	TWA 5 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>
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)					Ceiling / Peak: 0.4 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup>
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Ethylene glycol	TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> Pelle*	Ceiling 100 mg/m <sup>3</sup> C(A4)	Huid* STEL 104 mg/m <sup>3</sup> TWA 52 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup>	TWA 20 ppm TWA 50 mg/m <sup>3</sup> STEL 40 ppm STEL 100 mg/m <sup>3</sup> iho*	TWA 10 ppm TWA 26 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> H*
tetrasodium pyrophosphate, decahydrate					TWA 5 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)	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*

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	P*				
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Ethylene glycol	H* STEL 20 ppm STEL 52 mg/m <sup>3</sup> TWA 10 ppm TWA 26 mg/m <sup>3</sup>	SS-C** H* TWA 10 ppm TWA 26 mg/m <sup>3</sup> STEL 20 ppm STEL 52 mg/m <sup>3</sup>	TWA 15 mg/m <sup>3</sup> STEL 50 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup> TWA 20 ppm TWA 52 mg/m <sup>3</sup> Ceiling 25 ppm S* STEL 104 mg/m <sup>3</sup> STEL 40 ppm	TWA 10 mg/m <sup>3</sup> TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> Skin
tetrasodium pyrophosphate, decahydrate	STEL 10 mg/m <sup>3</sup> TWA 5 mg/m <sup>3</sup>	TWA 5 mg/m <sup>3</sup>		TWA 5 mg/m <sup>3</sup> STEL 10 mg/m <sup>3</sup>	TWA 5 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
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	H* TWA 0.05 mg/m <sup>3</sup> Sh/Sah**	SS-C** S+ TWA 0.2 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

Tightly fitting safety goggles

##### Skin protection

##### Hand protection

Impervious gloves.

##### Other

Chemical resistant apron. Boots. Impervious clothing. Impervious gloves.

##### Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. No special protective equipment required.

#### 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  
Solubility

#### Luminol/Enhancer Solution

Liquid  
Clear  
Colorless or light pink  
9.5  
@ 20 °C  
Soluble in water

Kit Component  
Physical state  
Appearance  
Color  
pH VALUE  
Remarks

#### Stable Peroxide Buffer

Liquid  
Clear  
Colorless  
4.9-5.1  
@ 20 °C

Kit Component  
Physical state

#### ELISA Wash Buffer (20X)

Liquid

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Appearance Clear  
Color Colorless  
pH VALUE 6.4  
Remarks @ 20 °C

Kit Component **ELISA Sample Diluent**  
Physical state Liquid  
Appearance Clear  
Color Blue  
pH VALUE 7.1  
Remarks @ 20 °C

Kit Component **Cell Lysis Buffer (10X)**  
Physical state Liquid  
Color Colorless  
pH VALUE 7.5  
Remarks @ 20 °C

Kit Component **Green Detection Antibody (Lyophilized)**  
Physical state Solid  
Appearance Lyophilized Powder  
Color Green

Kit Component **Green Detection Antibody Diluent**  
Physical state Liquid  
Appearance Clear  
Color Green  
pH VALUE 7.4  
Remarks @ 20 °C

Kit Component **\*Red HRP-Linked Antibody (Lyophilized)**  
Physical state Solid  
Appearance Lyophilized Powder  
Color Red

Kit Component **Red HRP Diluent**  
Physical state Liquid  
Appearance Clear  
Color Red  
pH VALUE 7.4  
Remarks @ 20 °C

Kit Component **Green Detection Antibody (Liquid)**  
Physical state Liquid  
Appearance Clear  
Color Green  
pH VALUE 7.4  
Remarks @ 20 °C

Kit Component **\*Red HRP-Linked Antibody (Liquid)**  
Physical state Liquid  
Appearance Clear  
Color Red  
pH VALUE 7.4  
Remarks @ 20 °C

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

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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. Exposure to air or moisture over prolonged periods. 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

Metals. Strong oxidizing agents, strong acids, and strong bases.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Product Information

Refer to kit component SDS for full toxicological 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
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	= 1800 mg/kg (Rat)	-	-
maleic acid	708 mg/kg (Rat)	1,560 mg/kg (Rabbit)	> 0.72 mg/L (Rat) 1h
trometamol	5900 mg/kg (Rat)	-	-
sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg (Rabbit) = 50 mg/kg (Rat)	-
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	= 53 mg/kg (Rat) = 481 mg/kg (Rat)	-	= 1.23 mg/L (Rat) 4 h

#### Information on likely routes of exposure

##### Inhalation

Kit Component Inhalation	Luminol/Enhancer Solution Avoid breathing vapors or mists May cause irritation of respiratory tract
Kit Component Inhalation	Stable Peroxide Buffer May cause irritation of respiratory tract
Kit Component	ELISA Wash Buffer (20X)

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Inhalation	Avoid breathing vapors or mists May cause irritation of respiratory tract
Kit Component Inhalation	Green Detection Antibody (Lyophilized) May cause allergic respiratory reaction
Kit Component Inhalation	*Red HRP-Linked Antibody (Lyophilized) May cause allergic respiratory reaction
Kit Component Inhalation	Red HRP Diluent Avoid breathing vapors or mists May cause irritation of respiratory tract

### Eye contact

Kit Component Eye contact	Luminol/Enhancer Solution Avoid contact with eyes
Kit Component Eye contact	Stable Peroxide Buffer Expected to be an irritant based on components May cause slight irritation
Kit Component Eye contact	ELISA Wash Buffer (20X) Expected to be an irritant based on components
Kit Component Eye contact	Cell Lysis Buffer (10X) Expected to be an irritant based on components
Kit Component Eye contact	Red HRP Diluent Contact with eyes may cause irritation

### Skin contact

Kit Component Skin contact	Luminol/Enhancer Solution Avoid contact with skin
Kit Component Skin contact	Stable Peroxide Buffer Substance may cause slight skin irritation
Kit Component Skin contact	ELISA Wash Buffer (20X) Repeated or prolonged skin contact may cause allergic reactions with susceptible persons Expected to be an irritant based on components
Kit Component Skin contact	Green Detection Antibody (Lyophilized) Repeated or prolonged skin contact may cause allergic reactions with susceptible persons
Kit Component Skin contact	*Red HRP-Linked Antibody (Lyophilized) Repeated or prolonged skin contact may cause allergic reactions with susceptible persons
Kit Component Skin contact	Red HRP Diluent Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

### Ingestion

Kit Component Ingestion	Luminol/Enhancer Solution Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Kit Component Ingestion	Stable Peroxide Buffer Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Kit Component Ingestion	ELISA Wash Buffer (20X) Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

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

**Symptoms** Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms:  
Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Contains an animal derived biological. May produce an allergic reaction in susceptible individuals 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.

**Skin and Eye Corrosion/Irritation**

Kit Component	ELISA Wash Buffer (20X)
Skin corrosion/irritation	Causes skin irritation
Serious eye damage/eye irritation	Causes serious eye irritation

Kit Component	Cell Lysis Buffer (10X)
Serious eye damage/eye irritation	Irritating to eyes

**Sensitization**

Kit Component	ELISA Wash Buffer (20X)
Skin Sensitization	Product is or contains a sensitizer. May cause an allergic skin reaction.

Kit Component	Green Detection Antibody (Lyophilized)
Respiratory Sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin Sensitization	May cause skin sensitization

Kit Component	*Red HRP-Linked Antibody (Lyophilized)
Respiratory Sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin Sensitization	May cause skin sensitization

Kit Component	Red HRP Diluent
Skin Sensitization	Product is or contains a sensitizer. May cause an allergic skin reaction.

Kit Component	*Red HRP-Linked Antibody (Liquid)
Skin Sensitization	Product is or contains a sensitizer. May cause an allergic skin reaction.

**Mutagenic effects** No information available

**Carcinogenic effects** No information available.

**Reproductive toxicity** No information available.

**Systemic Target Organ Toxicity (STOT)**

Kit Component	Luminol/Enhancer Solution
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure
Target Organ Effects	Kidney

**Aspiration Hazard** No information available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

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## 12321 PathScan® Phospho-Ret (panTyr) Chemiluminescent Sandwich ELISA Kit

### Product Information

Kit Component ELISA Wash Buffer (20X)  
 Ecotoxicity Harmful to aquatic life with long lasting effects

### Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	-	LC50 8.9 mg/l (Pimephales promelas) 96 h	EC50 26 mg/l (Daphnia) 48 h
maleic acid	-	LC50 5 mg/L (Pimephales promelas) 96 h	EC50 250 - 400 mg/L (Daphnia magna) 48 h
trometamol	-	-	NOEC >100 mg/L (Selenastrum capricornutum) 96 h
Ethylene glycol	EC50 6500 - 13000 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 40761 mg/L (Oncorhynchus mykiss) 96 h LC50 27540 mg/L (Lepomis macrochirus) 96 h LC50 41000 mg/L (Oncorhynchus mykiss) 96 h LC50 14 - 18 mL/L (Oncorhynchus mykiss) 96 h LC50 40000 - 60000 mg/L (Pimephales promelas) 96 h LC50 16000 mg/L (Poecilia reticulata) 96 h	EC50 46300 mg/L (Daphnia magna) 48 h
sodium azide	EC50 0.35 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 0.8 mg/L (Oncorhynchus mykiss) 96 h LC50 5.46 mg/L (Pimephales promelas) 96 h LC50 0.7 mg/L (Lepomis macrochirus) 96 h	LC100 1 mg/L (Orconectes rusticus) 96 h
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	EC50 0.11 - 0.16 mg/L (Pseudokirchneriella subcapitata) 72 h EC50 0.31 mg/L (Anabaena flos-aquae) 120 h EC50 0.03 - 0.13 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 1.6 mg/L (Oncorhynchus mykiss) 96 h	EC50 4.71 mg/L (Daphnia magna) 48 h EC50 0.71 - 0.99 mg/L (Daphnia magna) 48 h EC50 0.12 - 0.3 mg/L (Daphnia magna) 48 h

### 12.2. Persistence and degradability

Kit Component ELISA Wash Buffer (20X)  
 Persistence and degradability Not readily biodegradable

### 12.3. Bioaccumulative potential

Kit Component ELISA Wash Buffer (20X)  
 Bioaccumulation Not likely to bioaccumulate

Chemical Name	Octanol-Water Partition Coefficient
maleic acid	0.32
Ethylene glycol	-1.93

### 12.4. Mobility in soil

## 12321 PathScan® Phospho-Ret (panTyr) Chemiluminescent Sandwich ELISA Kit

Kit Component ELISA Wash Buffer (20X)  
Mobility Will likely be mobile in the environment due to its water solubility

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

No information available.

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	Group III Chemical	-	-

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Waste from residues / unused products** Dispose of in accordance with local regulations.  
**Contaminated packaging** Do not re-use empty containers.  
**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  
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

### ADR/RID

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  
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

## 12321 PathScan® Phospho-Ret (panTyr) Chemiluminescent Sandwich ELISA Kit

Chemical Name	Candidate List of Substances of Very High Concern for Authorization Information
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether (10 - 20%)	Reason for inclusion Endocrine disrupting properties, Article 57f - environment

### SEVESO Directive Information

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

### International inventories

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

### 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

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H412 - Harmful to aquatic life with long lasting effects

**Classification procedure:** Calculation method. Bridging principle "Dilution".

**Issuing Date:** 2018-01-19

### 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.