

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

Issuing Date: 2018-06-06

Version: 1

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

1.1. Product identifier

Product No	7071
Product name	Phototope-HRP Western Blot Detection System, Anti-rabbit IgG, HRP-linked Antibody
Kit Component	Anti-rabbit IgG, HRP-linked Antibody Anti-biotin, HRP-linked Antibody Biotinylated Protein Ladder LumiGLO® Reagent A (20X) Peroxide Reagent B (20X)
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
glycerol (>100%)	Not Listed	56-81-5
dimethyl sulfoxide (20 - 30%)	Not Listed	67-68-5
sodium dodecyl sulphate (0 - 10%)	Not Listed	151-21-3
(R*,R*)-1,4-dimercaptobutane-2,3-diol (0 - 10%)	Not Listed	3483-12-3

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

Identified uses For research use only

1.3. Details of the supplier of the safety data sheet

Importer (Applicable in EU only)	Manufacturer
Cell Signaling Technology Europe B.V.	Cell Signaling Technology, Inc.
Schuttersveld 2	3 Trask Lane
2316 ZA Leiden	Danvers, MA 01923
The Netherlands	United States
TEL: +31 (0)71 7200 200	TEL: +1 978 867 2300
FAX: +31 (0)71 891 0098	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

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Classification and label elements described below are inclusive of all hazards of the combined kit. The most severe classifications are listed for each endpoint. Refer to individual kit component SDS for classification and label elements for each component present in the kit.

Serious eye damage/eye irritation	Category 2 - (H319)
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2.2. Label elements



Signal word

Warning

Hazard statement(s)

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

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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

May produce an allergic reaction. Toxic to aquatic life. May accelerate skin absorption of other materials. Special attention needed when toxic materials are present in dimethyl sulfoxide because of enhanced skin absorption.

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 Name Anti-rabbit IgG, HRP-linked 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

Kit Component Name Anti-biotin, HRP-linked 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

Kit Component Name Biotinylated Protein Ladder

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
glycerol	56-81-5	5-10	200-289-5	-	no data available
sodium dodecyl sulphate	151-21-3	1-5	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

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(R*,R*)-1,4-dimercaptobutane-2,3-diol	3483-12-3	0.1-<1	222-468-7	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available
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Kit Component Name LumiGIO® Reagent A (20X)

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
dimethyl sulfoxide	67-68-5	<20	200-664-3	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	no data available

Kit Component Name Peroxide Reagent B (20X)

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

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. Call a physician if irritation persists.
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

Irritating to eyes and skin.

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. For personal

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For emergency responders protection see section 8. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protection recommended in Section 8.

6.2. Environmental precautions

Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.

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. Clean contaminated surface thoroughly.

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. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Use only in area provided with appropriate exhaust ventilation. Prevent the formation of vapors, mists and aerosols. When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice. Provide regular cleaning of equipment, work area and clothing.

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

Chemical Name	European Union	United Kingdom	France	Spain	Germany
glycerol		STEL 30 mg/m ³ TWA 10 mg/m ³	TWA 10 mg/m ³	TWA 10 mg/m ³	Ceiling / Peak: 400 mg/m ³ TWA: 200 mg/m ³
dimethyl sulfoxide					Skin Ceiling / Peak: 100 ppm Ceiling / Peak: 320 mg/m ³ TWA: 50 ppm TWA: 160 mg/m ³
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
glycerol		TWA 10 mg/m ³		TWA 20 mg/m ³	
dimethyl sulfoxide				TWA 50 ppm iho*	TWA 50 ppm TWA 160 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
glycerol		SS-C** TWA 50 mg/m ³ STEL 100 mg/m ³	TWA 10 mg/m ³		TWA 10 mg/m ³ STEL 30 mg/m ³
dimethyl sulfoxide	H* TWA 50 ppm TWA 160 mg/m ³	H* TWA 50 ppm TWA 160 mg/m ³ STEL 100 ppm STEL 320 mg/m ³			

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

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

Kit Component	Anti-biotin, HRP-linked Antibody
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH VALUE	7.5
Remarks	@ 20 °C

Kit Component	Biotinylated Protein Ladder
Physical state	Liquid
Appearance	Clear
Color	Red
pH VALUE	6-8
Remarks	@ 20 °C

Kit Component	LumiGLO® Reagent A (20X)
Physical state	Liquid
Appearance	Clear
Color	Light yellow

Kit Component	Peroxide Reagent B (20X)
Physical state	Liquid
Appearance	Clear
Color	Colorless

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.

10.5. Incompatible materials

Strong oxidizing agents. Acid chlorides. Acid anhydrides.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides (COx). Sulfur oxides.

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 ³ (Rat) 1 h
dimethyl sulfoxide	14500 mg/kg (Rat)	40000 mg/kg (Rat)	-
sodium dodecyl sulphate	= 1288 mg/kg (Rat) = 1783 mg/kg (Rat)	= 200 mg/kg (Rabbit)	> 3900 mg/m ³ (Rat) 1 h
(R*,R*)-1,4-dimercaptobutane-2,3-diol	400 mg/kg (Rat)	-	-

Information on likely routes of exposure

Inhalation

Kit Component Inhalation	Anti-rabbit IgG, HRP-linked Antibody Avoid breathing vapors or mists May cause irritation of respiratory tract
Kit Component Inhalation	Anti-biotin, HRP-linked Antibody Avoid breathing vapors or mists May cause irritation of respiratory tract
Kit Component Inhalation	Biotinylated Protein Ladder Inhalation of vapors in high concentration may cause irritation of respiratory system

Eye contact

Kit Component	Anti-rabbit IgG, HRP-linked Antibody
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Eye contact	Avoid contact with eyes May cause slight irritation
Kit Component Eye contact	Anti-biotin, HRP-linked Antibody Avoid contact with eyes May cause slight irritation
Kit Component Eye contact	Biotinylated Protein Ladder Contact with eyes may cause irritation
Kit Component Eye contact	LumiGLO® Reagent A (20X) Avoid contact with eyes Contact with eyes may cause irritation

Skin contact

Kit Component Skin contact	Anti-rabbit IgG, HRP-linked Antibody Avoid contact with skin
Kit Component Skin contact	Anti-biotin, HRP-linked Antibody Avoid contact with skin
Kit Component Skin contact	Biotinylated Protein Ladder May cause irritation
Kit Component Skin contact	LumiGLO® Reagent A (20X) Avoid contact with skin Expected to be an irritant based on components

Ingestion

Kit Component Ingestion	Anti-rabbit IgG, HRP-linked Antibody Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Kit Component Ingestion	Anti-biotin, HRP-linked Antibody Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Kit Component Ingestion	Biotinylated Protein Ladder Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

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

Symptoms Irritating to eyes and skin

Skin and Eye Corrosion/Irritation

Kit Component Serious eye damage/eye irritation	Biotinylated Protein Ladder Causes serious eye irritation
Kit Component Skin corrosion/irritation Serious eye damage/eye irritation	LumiGLO® Reagent A (20X) Causes skin irritation Causes serious eye irritation

Sensitization No information available

Mutagenic effects No information available

Carcinogenic effects No information available.

Reproductive toxicity No information available.

Systemic Target Organ Toxicity (STOT) No information available

Aspiration Hazard

No information available.

SECTION 12: Ecological information**12.1. Toxicity****Product Information****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
dimethyl sulfoxide	EC50 12350 - 25500 mg/L (Skeletonema costatum) 96 h	LC50 40 g/L (Lepomis macrochirus) 96 h LC50 33 - 37 g/L (Oncorhynchus mykiss) 96 h LC50 34000 mg/L (Pimephales promelas) 96 h LC50 41.7 g/L (Cyprinus carpio) 96 h	EC50 7000 mg/L (Daphnia species) 24 h
sodium dodecyl sulphate	EC50 53 mg/L (Desmodesmus subspicatus) 72 h EC50 30 - 100 mg/L (Desmodesmus subspicatus) 96 h EC50 42 mg/L (Desmodesmus subspicatus) 96 h EC50 3.59 - 15.6 mg/L (Pseudokirchneriella subcapitata) 96 h EC50 117 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 8 - 12.5 mg/L (Pimephales promelas) 96 h LC50 4.1 mg/L (Leuciscus idus) 48 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 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 LC50 15 - 18.9 mg/L (Pimephales promelas) 96 h	EC50 21.2 mg/L (Daphnia magna) 24 h EC50 1.8 mg/L (Daphnia magna) 48 h

12.2. Persistence and degradability

Kit Component Biotinylated Protein Ladder
Persistence and degradability Product is biodegradable

12.3. Bioaccumulative potential

Kit Component Biotinylated Protein Ladder
Bioaccumulation Not likely to bioaccumulate

Chemical Name	Octanol-Water Partition Coefficient
glycerol	-1.76

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dimethyl sulfoxide	-2.03
sodium dodecyl sulphate	1.6

12.4. Mobility in soil

Kit Component Biotinylated Protein Ladder
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

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
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
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	-
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
H319 - Causes serious eye irritation

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.