

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

**Issuing Date:** 2017-07-10

**Revision Date:** 2022-11-03

**Version:** 2

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

### 1.1. Product identifier

**Product No** 2416  
**Product name** Phospho- $\beta$ -Arrestin 1 (Ser412) (6-24) Mouse mAb

### Contains

Chemical name	Index No.	CAS No
glycerol (30-60)	Not Listed	56-81-5
sodium azide (<0.02)	011-004-00-7	26628-22-8

### 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	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

**Website** [www.cellsignal.com](http://www.cellsignal.com)  
**E-mail Address** [info@cellsignal.eu](mailto: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**

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.2. Label elements

**Signal word**  
None.

## 2416 Phospho- $\beta$ -Arrestin 1 (Ser412) (6-24) Mouse mAb

---

### Hazard statement(s)

None.

### Precautionary statement(s)

None.

### 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

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	<0.02	247-852-1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)	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>	Use first aid treatment according to the nature of the injury. When symptoms persist or in all cases of doubt seek medical advice.
<b>Inhalation</b>	Move to fresh air.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water.

### 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

<b>Notes to physician</b>	Treat symptomatically.
---------------------------	------------------------

## 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>	None.

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

No information available.

**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**

Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. 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**

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	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*

## 2416 Phospho-β-Arrestin 1 (Ser412) (6-24) Mouse mAb

		C(A4) P*			
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

Wear protective gloves and protective clothing

##### Hand protection

Impervious gloves.

##### Other

Wear suitable protective clothing.

##### Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

#### Environmental Exposure Controls

No information available.

## SECTION 9: Physical and chemical properties

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

Physical state	Liquid
Appearance	Clear
Color	Colorless
Odor	No information available
Odor Threshold	No information available

Property	Values	Remarks • Method
pH	7.5	@ 20 °C
Melting point/freezing point		No information available
Initial boiling point and boiling range		No information available
Flash point		No information available.
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Upper flammability limit		No information available
Lower flammability limit		No information available
Vapor pressure		No information available
Vapor density		No information available
Relative density		No information available
Solubility		No information available
Partition coefficient: n-octanol/water		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available.
Viscosity		No information available
Explosive properties		No information available
Oxidizing properties		No information available

### 9.2. Other information

Softening point	No information available
Molecular Weight	No information available

## 2416 Phospho- $\beta$ -Arrestin 1 (Ser412) (6-24) Mouse mAb

<b>Solubility in other solvents</b>	No information available
<b>VOC content</b>	No information available
<b>Liquid Density</b>	No information available

### 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

<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous reactions</b>	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

This product is for experimental uses only. The product has not been completely analyzed and all of the hazards may not be known. Please use caution while handling this product.

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.
<b>Eye contact</b>	Avoid contact with eyes.
<b>Skin contact</b>	Avoid contact with skin.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<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 corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye 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.

## 2416 Phospho- $\beta$ -Arrestin 1 (Ser412) (6-24) Mouse mAb

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Aspiration Hazard** No information available.  
**Other information** No information available.

### SECTION 12: Ecological information

#### 12.1. Toxicity

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 (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

#### 12.2. Persistence and degradability

No information available

#### 12.3. Bioaccumulative potential

##### Bioaccumulation

Chemical name	Octanol-Water Partition Coefficient
glycerol	-1.76

**Bioconcentration factor (BCF)** No information available.

#### 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

**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

## 2416 Phospho- $\beta$ -Arrestin 1 (Ser412) (6-24) Mouse mAb

---

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

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

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:** 2017-07-10

**Revision Date:** 2022-11-03

**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.