

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

**Issuing Date:** 2017-08-20

**Revision Date:** 2024-03-22

**Version:** 2

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

### 1.1. Product identifier

**Product No** 13859  
**Product name** Cellular Glutathione Detection Assay Kit

**Kit Component**

- 13870: Reduced Glutathione Standard
- 13882: Glutathione-S-Transferase
- 13865: Tris Assay Buffer
- 13899: Digitonin Lysis Buffer
- 13887: Monochlorobimane

### Hazardous Components

**13887: Monochlorobimane**

### Contains

Chemical name	Index No.	CAS No
1H,7H-Pyrazolo(1,2-a)pyrazole-1,7-dione, 3-(chloromethyl)-2,5,6-trimethyl- (90 - 100%) digitonin (0 - 10%)	Not Listed	76421-73-3
	Not Listed	11024-24-1

### 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. 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

## 13859 Cellular Glutathione Detection Assay Kit

### 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)
Specific target organ toxicity - single exposure (STOT SE)	Category 3 - (H335)

### 2.2. Label elements



#### Signal word

Warning

#### Hazard statement(s)

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

#### Precautionary statement(s)

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

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

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P312 - Call a POISON CENTER or doctor if you feel unwell.

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.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container to an approved waste disposal plant.

### 2.3. Other hazards

95 % of the mixture consists of ingredient(s) of unknown acute toxicity.

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

13887: Monochlorobimane

WARNING: Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration
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## 13859 Cellular Glutathione Detection Assay Kit

					Number
1H,7H-Pyrazolo(1,2-a)pyrazole-1,7-dione, 3-(chloromethyl)-2,5,6-trimethyl-	76421-73-3	100	-	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

### Kit Component 13899: Digitonin Lysis Buffer

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
digitonin	11024-24-1	<0.1	234-255-6	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331)	no data available

### Kit Component 13865: Tris Assay Buffer 13870: Reduced Glutathione Standard 13882: Glutathione-S-Transferase

These products do 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

<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. Get medical attention immediately if symptoms occur.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water.

### 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. 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

<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**

**For non-emergency personnel** Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. For personal protection see section 8.

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

**6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. See Section 12 for more information.

**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** 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**

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation.

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

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

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

Use as a laboratory reagent.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

The product does not contain any hazardous materials with occupational exposure limits established.

**8.2. Exposure controls**

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### Appropriate engineering controls

Showers, eyewash stations, and ventilation systems

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

<b>Eye/face protection</b>	Tightly fitting safety goggles
<b>Skin protection</b>	Wear protective gloves and protective clothing
<b>Hand protection</b>	Impervious gloves
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	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.

<b>Kit Component</b>	<b>13870: Reduced Glutathione Standard</b>
Physical state	Solid
Appearance	Powder
Color	White

<b>Kit Component</b>	<b>13882: Glutathione-S-Transferase</b>
Physical state	Solid
Appearance	Crystalline Powder
Color	Clear

<b>Kit Component</b>	<b>13899: Digitonin Lysis Buffer</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH	6.0
Remarks	@ 20 °C

<b>Kit Component</b>	<b>13887: Monochlorobimane</b>
Physical state	Solid
Appearance	Powder
Color	White
Melting point/freezing point	135 - 136 °C

<b>Kit Component</b>	<b>13865: Tris Assay Buffer</b>
Physical state	Liquid
Color	Clear
pH	8.0

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

## 13859 Cellular Glutathione Detection Assay Kit

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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.

### 10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors: Nitrogen oxides (NOx), Carbon oxides (COx).

## SECTION 11: Toxicological information

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

#### **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
digitonin	> 50 mg/kg (Rat)	-	-

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

##### Inhalation

**Kit Component** **13887: Monochlorobimane**  
Inhalation May cause irritation

##### Eye contact

**Kit Component** **13887: Monochlorobimane**  
Eye contact May cause irritation

##### Skin contact

**Kit Component** **13887: Monochlorobimane**  
Skin contact May cause irritation

##### Ingestion

There is no data available for this product.

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

<b>Symptoms</b>	Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms. Irritating to eyes and skin.
<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>	

<b>Kit Component</b> STOT - single exposure	<b>13887: Monochlorobimane</b> May cause respiratory irritation
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**Aspiration Hazard** No information available.

**11.2. Information on other hazards**

**Other adverse effects** No information available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Product Information** No information available

**Component Information**

**12.2. Persistence and degradability**

<b>Kit Component</b> Persistence and degradability	<b>13887: Monochlorobimane</b> Product is biodegradable
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**12.3. Bioaccumulative potential**

No information available.

**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

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**12.7. 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 Maritime transport in bulk according to IMO instruments	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**

**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**

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  
H335 - May cause respiratory irritation

**Classification procedure:** Expert judgment and weight of evidence determination.  
**Issuing Date:** 2017-08-20  
**Revision Date:** 2024-03-22

**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.