

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

**Issuing Date:** 2017-08-28

**Revision Date:** 2024-10-29

**Version:** 3

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

### 1.1. Product identifier

**Product No** 59863  
**Product name** Ghost Dye Violet 510 Fixable Viability Dye

### Contains

Chemical name	Index No.	CAS No
dimethyl sulfoxide (95 - <100)	Not Listed	67-68-5

**Formula** C<sub>2</sub>H<sub>6</sub>OS

### 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  
**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 2 - (H319)

### 2.2. Label elements

**Signal word**

Warning

**Hazard statement(s)**

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

**Precautionary statement(s)**

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

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.

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

P337 + P313 - If eye irritation persists: Get medical advice/attention.

**2.3. Other hazards**

0 % of the mixture consists of ingredient(s) of unknown acute toxicity.

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

**Formula**C<sub>2</sub>H<sub>6</sub>OS

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
dimethyl sulfoxide	67-68-5	95 - <100	200-664-3	-	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**

Move to fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin contact**

Wash off with warm water and soap. If symptoms persist, call a physician.

**Eye contact**

Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

**Ingestion**

Rinse mouth. Do not induce vomiting without medical advice. If symptoms persist, call a physician.

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

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. 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 Water spray Carbon dioxide (CO <sub>2</sub> ) Foam Dry chemical
<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. Vapors may form explosive mixture with air.

**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**

<b>For non-emergency personnel</b>	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

Should not be released into the environment. Prevent product from entering drains.

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

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material.

**6.4. Reference to other sections**

See Sections 8 & 13 for additional information.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Keep away from open flames, hot surfaces and sources of ignition. Do not breathe vapors or spray mist. Wear personal protective equipment. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

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

Keep in a dry, cool and well-ventilated place. Protect from light.

**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
dimethyl sulfoxide					TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> Skin Ceiling / Peak: 100 ppm Ceiling / Peak: 320 mg/m <sup>3</sup> H*
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
dimethyl sulfoxide				TWA 50 ppm iho*	TWA 50 ppm TWA 160 mg/m <sup>3</sup> STEL 100 ppm STEL 320 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
dimethyl sulfoxide	H* TWA 50 ppm TWA 160 mg/m <sup>3</sup>	H* TWA 50 ppm TWA 160 mg/m <sup>3</sup> STEL 100 ppm STEL 320 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**

Safety glasses with side-shields.

**Skin protection**

Wear protective gloves and protective clothing.

**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**

**Physical state**

Liquid

**Color**

Colorless

**Odor**

Sulfur-like odor

**Property**

**Values**

**Remarks • Method**

pH

6-8

<b>Melting point/freezing point</b>	18-19 °C / 64.4-66.2 °F	
<b>Boiling point or initial boiling point and boiling range</b>	188-190 °C / 370-374 °F	
<b>Flash point</b>	87-89 °C / 188.6-192.2 °F	
<b>Evaporation rate</b>	No information available	
<b>Flammability</b>	No information available	
<b>Upper/lower flammability or explosive limits</b>	Lower: 2.4-2.8% Upper: 61-64%	No information available
<b>Vapor pressure</b>	No information available	
<b>Relative vapor density</b>	No information available	
<b>Density and/or relative density</b>	No information available	
<b>Solubility</b>	No information available.	
<b>Partition coefficient: n-octanol/water</b>	log Kow = -1.35	
<b>Autoignition temperature</b>	214-216 °C / 417.2-420.8 °F	
<b>Decomposition temperature</b>	No information available	No information available.
<b>Viscosity</b>	No information available	No information available
<b>Explosive properties</b>	No information available	No information available
<b>Oxidizing properties</b>	No information available	No information available

### 9.2. Other information

<b>Softening point</b>	No information available
<b>Molecular Weight</b>	No information available
<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

Keep away from open flames, hot surfaces and sources of ignition.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Sulfur oxides

## SECTION 11: Toxicological information

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

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## 59863 Ghost Dye Violet 510 Fixable Viability Dye

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.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
dimethyl sulfoxide	= 28300 mg/kg (Rat)	= 40000 mg/kg (Rat)	> 5.33 mg/L (Rat) 4 h

**Unknown Acute Toxicity** 0 % of the mixture consists of ingredient(s) of unknown acute toxicity.

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Irritating to eyes.
<b>Skin contact</b>	May be absorbed through the skin in harmful amounts. May cause irritation.
<b>Ingestion</b>	May be harmful if swallowed.

**Symptoms** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irritating to eyes and skin.

<b>Skin corrosion/irritation</b>	Irritating to skin.
<b>Serious eye damage/eye irritation</b>	Irritating to eyes.
<b>Sensitization</b>	No information available.
<b>Mutagenic effects</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration Hazard</b>	No information available.

### 11.2. Information on other hazards

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
dimethyl sulfoxide	-	LC50 34000 mg/L (Pimephales promelas) 96 h LC50 33 - 37 g/L (Oncorhynchus mykiss) 96 h LC50 40 g/L (Lepomis macrochirus) 96 h LC50 41.7 g/L (Cyprinus carpio) 96 h	-

**Unknown Aquatic Toxicity** 0% of the mixture consists of components of unknown hazards to the aquatic environment.

### 12.2. Persistence and degradability

Readily biodegradable

### 12.3. Bioaccumulative potential

<b>Bioaccumulation</b>	Does not bioaccumulate.
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Chemical name	Octanol-Water Partition Coefficient
dimethyl sulfoxide	-1.35

**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. Endocrine disrupting properties**

This product does not contain any known or suspected endocrine disruptors

**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**

<b>14.1 UN number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	None
<b>14.6 Special precautions for user</b>	None
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not regulated

**ADR/RID**

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

**IATA**

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

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

**Issuing Date:** 2017-08-28

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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.