

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

**Issuing Date:** 2015-11-30 **Revision Date:** 2025-06-09 **Version:** 3

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

#### 1.1. Product identifier

Product No 12776

Product name Malachite Green Phosphate Detection Kit

**Kit Component** 76120: Malachite Green Reagent

90943: Phosphate Standard (1mM)

Hazardous Components

76120: Malachite Green Reagent

**Contains** 

 Chemical name
 Index No.
 CAS No.

 sulfuric acid (7-8)
 016-020-00-8
 7664-93-9

### 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. Cell Signaling Technology, Inc.

Dellaertweg 9b 3 Trask Lane
2316 WZ Leiden Danvers, MA 01923
The Netherlands United States

TEL: +31 (0)71 7200 200 TEL: +1 978 867 2300 FAX: +31 (0)71 891 0019 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

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

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.

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Corrosive to metals	Category 1 - (H290)

#### 2.2. Label elements



Signal word Warning

#### **Hazard statements**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H290 - May be corrosive to metals

#### **Precautionary statements**

P234 - Keep only in original container

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

P362 + P364 - Take off contaminated clothing and wash it before reuse

P390 - Absorb spillage to prevent material damage

P406 - Store in corrosion resistant container with a resistant inner liner

## 2.3. Other hazards

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

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

# Kit Component 76120: Malachite Green Reagent

Chemical name	CAS No.	Weight-%	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
sulfuric acid	7664-93-9	7.5	231-639-5 (016-020-00-8)	Skin Corr. 1A (H314)	No data available

#### Kit Component 90943: Phosphate Standard (1mM)

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** Show this safety data sheet to the doctor in attendance.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Inhalation

Get medical attention immediately if symptoms occur. If breathing is irregular or stopped,

administer artificial respiration.

Skin contact Wash off immediately with soap and plenty of water removing all contaminated clothes and

shoes. If skin irritation occurs, get medical advice/attention.

In the case of contact with eyes, rinse immediately with plenty of water and seek medical Eve contact

advice. Keep eye wide open while rinsing. Consult a physician.

Get medical attention. Do NOT induce vomiting. Clean mouth with water. Drink plenty of Ingestion

water. Never give anything by mouth to an unconscious person.

Protection of first-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

Significant esophageal or gastrointestinal tract irritation or burns may occur following ingestion. May cause skin, eye, and respiratory tract irritation.

## 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

**Unsuitable Extinguishing Media** 

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment 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

Do not touch damaged containers or spilled material unless wearing appropriate protective For non-emergency personnel Use personal protection recommended in Section 8.

clothing. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

For emergency responders

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

### 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 Dam up. Soak up with inert absorbent material. Take up mechanically, placing in

appropriate containers for disposal. 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

Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist.

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

Keep container tightly closed in a dry and well-ventilated place. Keep preferably in the original container. Otherwise, reproduce all indication of the regulation label on the new container. Keep in properly labeled containers. Keep out of the reach of children. Store in original container.

Packaging material Store in

Store in corrosive resistant container with a resistant inner liner.

#### 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 DFG	
sulfuric acid	TWA: 0.05 mg/m <sup>3</sup> ; mist			TWA-(VLA-ED): 0.05	TWA-MAK: 0.1	
	(thoracic fraction)	STEL: 0.15 mg/m <sup>3</sup> ; mist	mg/m³; thoracic fraction	mg/m³; mist	mg/m³; ;	
			STEL-VLCT: 3 mg/m <sup>3</sup> ;		Peak: 0.1 mg/m <sup>3</sup> ;	
					inhalable fraction	
Chemical name	Italy MDLPS	Portugal	Netherlands	Finland	Denmark	
sulfuric acid	TWA: 0.05 mg/m <sup>3</sup> ;	TWA (VLE-MP): 0.2	TWA: 0.05 mg/m <sup>3</sup> ; mist,	TWA: 0.05 mg/m <sup>3</sup> ;	TWA: 0.05 mg/m <sup>3</sup> ; mist	
	thoracic fraction, mist	mg/m³; thoracic	thoracic fraction	thoracic fraction	STEL: 0.1 mg/m <sup>3</sup> ; mist	
		fraction; mist		STEL: 0.1 mg/m <sup>3</sup> ;		
				thoracic fraction		
Chemical name	Austria	Switzerland	Poland	Norway	Ireland	
sulfuric acid	TWA-TMW: 0.1 mg/m <sup>3</sup> ;	TWA-MAK: 0.1 mg/m <sup>3</sup> ;	TWA-NDS: 0.05	TWA: 0.1 mg/m <sup>3</sup> ;	TWA: 0.05 ppm;	
	inhalable fraction	inhalable dust	mg/m <sup>3</sup> ; thoracic fraction	thoracic fraction,	STEL: 0.15	
	STEL-KZGW: 0.2	STEL-KZGW: 0.2		aerosol	ppm (calculated);	
	mg/m³ (); inhalable	mg/m³; inhalable dust		STEL: 0.3		
	fraction			mg/m³ (value		
				calculated); thoracic		
				fraction, aerosol		

### **Biological limit values**

### 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** 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

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 76120: Malachite Green Reagent

Physical state Liquid Color Yellow pH 1

Kit Component 90943: Phosphate Standard (1mM)

Physical state Liquid Color Colorless

# **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

**Hazardous polymerization** Hazardous polymerization does not occur.

Hazardous reactions Reacts violently with combustible and reducing materials

Reacts violently with water and organic materials with evolution of heat Reacts violently with bases and is corrosive to most common metals forming a

flammable/explosive gas (hydrogen)

#### 10.4. Conditions to avoid

Exposure to air or moisture over prolonged periods.

# 10.5. Incompatible materials

Incompatible with strong acids and bases, Incompatible with oxidizing agents, Organic material, Metals

### 10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors

# **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	Oral LD50	Dermal LD50	Inhalation LC50
sulfuric acid	= 2140 mg/kg (Rat)	-	= 347 ppm (Rat) 1 h

### Information on likely routes of exposure

Inhalation

Kit Component 76120: Malachite Green Reagent

Inhalation Avoid breathing vapors or mists. May cause irritation of respiratory tract.

Eye contact

Kit Component 76120: Malachite Green Reagent

Eye contact Avoid contact with eyes. Severely irritating to eyes.

Skin contact

Kit Component 76120: Malachite Green Reagent
Skin contact Avoid contact with skin. Irritating to skin.

Ingestion

Kit Component 76120: Malachite Green Reagent

Ingestion 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 Significant esophageal or gastrointestinal tract irritation or burns may occur following

ingestion. May cause skin, eye, and respiratory tract irritation.

Skin and Eye Corrosion/Irritation

Kit Component 76120: Malachite Green Reagent

Serious eye damage/eye irritation Causes serious eye irritation

Skin corrosion/irritation Irritating to skin

# 12776 - Malachite Green Phosphate Detection Kit

**Sensitization** No information available

Mutagenic effects No information available.

Carcinogenic effects Based on available data, the classification criteria are not met.

Reproductive toxicity No information available.

**Systemic Target Organ Toxicity** 

(STOT)

**Kit Component**STOT - single exposure

76120: Malachite Green Reagent
May cause respiratory irritation

**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** 

Chemical name	Algae/aquatic plants	Fish	Crustacea
sulfuric acid	-	LC50: >500mg/L (96h, Brachydanio	-
		rerio)	

## 12.2. Persistence and degradability

No information available.

#### 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

### 12.7. Other adverse effects

No information available

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues / unused

Dispose of in accordance with local regulations.

products

**Contaminated packaging** Do not re-use empty containers.

Kit Component 76120: Malachite Green Reagent

Waste Disposal Method Should not be released into the environment.

Other information Waste codes should be assigned by the user based on the application for which the product

was used.

# **SECTION 14: Transport information**

This material is subject to regulation as a hazardous material for shipping:

IMDG

14.1 UN number or ID number UN1760

**14.2 UN proper shipping name** Corrosive liquid, n.o.s. (Sulfuric acid)

14.3 Transport hazard class(es) 8
14.4 Packing group |||

14.5 Environmental hazards None

14.6 Special precautions for user

14.7 Maritime transport in bulk Not regulated

according to IMO instruments

ADR

**14.1 UN number or ID number** UN1760

**14.2 UN proper shipping name** Corrosive liquid, n.o.s. (Sulfuric acid)

14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
8
III
None

14.6 Special precautions for user

IATA

14.1 UN number or ID number UN1760

**14.2 UN proper shipping name** Corrosive liquid, n.o.s. (Sulfuric acid)

14.3Transport hazard class(es)814.4Packing groupIII14.5Environmental hazardsNone

14.6 Special precautions for user

# **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 Complies IECSC Complies

KECL -

PICCS Complies AIIC Complies

### 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 any hazard and/or precautionary statements referred to under Sections 2-15

H314 - Causes severe skin burns and eye damage

H290 - May be corrosive to metals

**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.