

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

Issuing Date: 2014-07-14

Revision Date: 2017-09-11

Version: 2

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

1.1. Product identifier

Product No 14166
Product name Hematoxylin
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
ethanol (10-30)	603-002-00-5	64-17-5
propane-1,2-diol (5-10)	Not Listed	57-55-6
acetic acid (5-10)	607-002-00-6	64-19-7
haematoxylin (1-5)	Not Listed	517-28-2

Other means of identification 14166P, 14166S, 14166L

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. Schuttersveld 2 2316 ZA Leiden The Netherlands TEL: +31 (0)71 7200 200 FAX: +31 (0)71 891 0098	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

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Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Flammable liquids	Category 3 - (H226)

For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16

2.2. Label elements



Signal word

Warning

Hazard statement(s)

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H226 - Flammable liquid and vapor

Precautionary statement(s)

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P233 - Keep container tightly closed

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

P403 + P235 - Store in a well-ventilated place. Keep cool

2.3. Other hazards

None under normal use conditions.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
ethanol	64-17-5	10-30	200-578-6	Flam. Liq. 2 (H225)	no data available
propane-1,2-diol	57-55-6	5-10	200-338-0	-	no data available
acetic acid	64-19-7	5-10	200-580-7	Skin Corr. 1A (H314) Flam. Liq. 3 (H226)	no data available
haematoxylin	517-28-2	1-5	208-237-3	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

For the full text of the R-phrases mentioned in this Section, see Section 16

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 symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Consult a physician. Oxygen or artificial respiration if needed. Immediate medical attention is not required. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Wash off immediately with soap and plenty of water. Immediate medical attention is not required. If symptoms persist, call a physician.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
Ingestion	Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician. Rinse mouth. Clean mouth with water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician. If swallowed, do not induce vomiting - seek medical advice.
Protection of first-aiders	Use personal protective equipment.

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

Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes, 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

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. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.

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. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

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. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

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. Do not eat, drink or smoke when using this product. Wear personal protective equipment. Prevent the formation of vapors, mists and aerosols. Use only in area provided with appropriate exhaust ventilation. When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from direct sunlight.

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
ethanol		STEL 3000 ppm STEL 5760 mg/m ³ TWA 1000 ppm TWA 1920 mg/m ³	TWA 1000 ppm TWA 1900 mg/m ³ STEL 5000 ppm STEL 9500 mg/m ³	TWA 1000 ppm TWA 1910 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³ Skin Ceiling / Peak: 1000 ppm Ceiling / Peak: 1920 mg/m ³
propane-1,2-diol		STEL 450 ppm STEL 1422 mg/m ³ STEL 30 mg/m ³ TWA 150 ppm TWA 474 mg/m ³ TWA 10 mg/m ³			
acetic acid	TWA 10 ppm TWA 25 mg/m ³		STEL 10 ppm STEL 25 mg/m ³	TWA 10 ppm TWA 25 mg/m ³ STEL 15 ppm STEL 37 mg/m ³	TWA: 10 ppm TWA: 25 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 50 mg/m ³
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
ethanol		TWA 1000 ppm C(A4)	Huid* STEL 1900 mg/m ³ TWA 260 mg/m ³	TWA 1000 ppm TWA 1900 mg/m ³ STEL 1300 ppm STEL 2500 mg/m ³	TWA 1000 ppm TWA 1900 mg/m ³
acetic acid		TWA 10 ppm TWA 25 mg/m ³ STEL 15 ppm	TWA 25 mg/m ³	TWA 5 ppm TWA 13 mg/m ³ STEL 10 ppm STEL 25 mg/m ³	TWA 10 ppm TWA 25 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
ethanol	STEL 2000 ppm STEL 3800 mg/m ³	SS-C** TWA 500 ppm	TWA 1900 mg/m ³	TWA 500 ppm TWA 950 mg/m ³	STEL 1000 ppm

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	TWA 1000 ppm TWA 1900 mg/m ³	TWA 960 mg/m ³ STEL 1000 ppm STEL 1920 mg/m ³		STEL 625 ppm STEL 1187.5 mg/m ³	
propane-1,2-diol				TWA 25 ppm TWA 79 mg/m ³ STEL 37.5 ppm STEL 118.5 mg/m ³	TWA 150 ppm TWA 470 mg/m ³ TWA 10 mg/m ³
acetic acid	STEL 20 ppm STEL 50 mg/m ³ TWA 10 ppm TWA 25 mg/m ³	SS-C** TWA 10 ppm TWA 25 mg/m ³ STEL 20 ppm STEL 50 mg/m ³	TWA 25 mg/m ³ STEL 50 mg/m ³	TWA 10 ppm TWA 25 mg/m ³ STEL 10 ppm STEL 25 mg/m ³	TWA 10 ppm TWA 25 mg/m ³ STEL 15 ppm STEL 37 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

Tightly fitting safety goggles. Face-shield.

Skin protection

Hand protection

Impervious gloves.

Other

Lightweight protective clothing. Apron. Impervious gloves. Long sleeved 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

Physical state	Liquid
Appearance	Clear
Color	Purple
Odor	Mild
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	2.6	@ 20 °C
Melting point/freezing point		No information available
Initial boiling point and boiling range		No information available
Flash point	39 °C / 102.2 °F	ASTM D-3828
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

Combustion/explosion hazards
Softening point

Product does not sustain combustion (Test Method: ASTM D-4206)
No information available

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Molecular Weight	No information available
Solubility in other solvents	No information available
VOC content	No information available
Density	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

Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous reactions	Vapors may form explosive mixtures with air.

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

Thermal decomposition can lead to release of irritating gases and vapors: Sulfur oxides, Carbon dioxide (CO₂). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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
ethanol	7060 mg/kg (Rat)	-	-
propane-1,2-diol	20000 mg/kg (Rat)	20800 mg/kg (Rabbit)	-
acetic acid	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h
haematoxylin	400 mg/kg (Rat)	-	-

Information on likely routes of exposure

Inhalation	Avoid breathing vapors or mists. Vapours may irritate throat and respiratory system.
Eye contact	Contact with eyes may cause irritation.
Skin contact	Expected to be an irritant based on components.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms	Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. 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.
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Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Causes serious eye irritation.

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Sensitization	No information available.
Mutagenic effects	No information available.
Carcinogenic effects	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target Organ Effects	Eyes, Skin, Respiratory system.
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
ethanol	-	LC50 100 mg/L (Pimephales promelas) 96 h LC50 13400 - 15100 mg/L (Pimephales promelas) 96 h LC50 12.0 - 16.0 mL/L (Oncorhynchus mykiss) 96 h	EC50 2 mg/L (Daphnia magna) 48 h EC50 10800 mg/L (Daphnia magna) 24 h LC50 9268 - 14221 mg/L (Daphnia magna) 48 h
propane-1,2-diol	EC50 19000 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 51600 mg/L (Oncorhynchus mykiss) 96 h LC50 710 mg/L (Pimephales promelas) 96 h LC50 51400 mg/L (Pimephales promelas) 96 h LC50 41 - 47 mL/L (Oncorhynchus mykiss) 96 h	EC50 1000 mg/L (Daphnia magna) 48 h
acetic acid	-	LC50 75 mg/L (Lepomis macrochirus) 96 h LC50 79 mg/L (Pimephales promelas) 96 h	EC50 47 mg/L (Daphnia magna) 24 h EC50 65 mg/L (Daphnia magna) 48 h

Unknown Aquatic Toxicity 55% of the mixture consists of components of unknown hazards to the aquatic environment.

12.2. Persistence and degradability

No product level data available.

12.3. Bioaccumulative potential

Bioaccumulation	Most components of this material are unlikely to bioaccumulate but some have not been tested.
Bioconcentration factor (BCF)	No information available.

Chemical Name	Octanol-Water Partition Coefficient
ethanol	-0.32
acetic acid	-0.31

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

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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	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. 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 not subject to regulation as a hazardous material for shipping.

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

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

P5c - Flammable Liquids [5000 tonnes (Lower-tier) 50,000 tonnes (Upper-tier)]

International inventories

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

International inventories legend

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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

H302 - Harmful if swallowed

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H225 - Highly flammable liquid and vapor

H314 - Causes severe skin burns and eye damage

H226 - Flammable liquid and vapor

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.