



SAFETY DATA SHEET (SDS): According to the OSHA Hazard Communication Standard 29 CFR 1910.1200
Issuing Date: 2014-07-14 **Revision Date:** 2015-01-13

Version: 1

SECTION 1. Identification

Product identifier

Product number 14166
Product name Hematoxylin
Other means of identification 14166P, 14166S, 14166L

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.
Uses advised against This product is not intended for use in diagnostic procedures or therapeutics.
This product is not intended for use in humans or animals.

Manufacturer, importer, supplier

Manufacturer address Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
United States
TEL: +1 978 867 2300
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Website www.cellsignal.com
Email address support@cellsignal.com
Company phone number 978-867-2300
Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

This substance/mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Flammable liquids	Category 3

GHS Label elements, including precautionary statements



Signal Word
Warning

Hazard statement(s)
Flammable liquid and vapor

Causes skin irritation
Causes serious eye irritation

Precautionary Statement(s)

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/Bond container and receiving equipment
Use only non-sparking tools
Take precautionary measures against static discharge
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
In case of fire: Use CO₂, dry chemical, or foam for extinction
Store in a well-ventilated place. Keep cool
Dispose of contents/container to an approved waste disposal plant

Supplementary Hazard Information

Hazards not otherwise classified (HNOC) None

SECTION 3. Composition/information on ingredients

Chemical Name	CAS No	Weight %
haematoxylin	517-28-2	1-5
propane-1,2-diol	57-55-6	5-10
acetic acid	64-19-7	5-10
ethanol	64-17-5	10-30

SECTION 4. First-aid measures

Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
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.
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.
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.

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.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Advice for emergency responders

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.
Protection of first-aiders	Use personal protective equipment.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

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.

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. Accidental release measures

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.
Other information	No information available.

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.

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.

SECTION 7. Handling and storage

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.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Keep away from direct sunlight.
Packaging material	No information available.
Incompatible products	Strong oxidizing agents.

SECTION 8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values			
Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
acetic acid	STEL 15 ppm TWA : 10 ppm	TWA : 10 ppm TWA : 25 mg/m ³	IDLH : 50 ppm TWA : 10 ppm TWA : 25 mg/m ³ STEL: 15 ppm STEL: 37 mg/m ³
ethanol	STEL 1000 ppm	TWA : 1000 ppm TWA : 1900 mg/m ³	IDLH : 3300 ppm TWA : 1000 ppm TWA : 1900 mg/m ³

Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

Eye/face protection

Tightly fitting safety goggles. Face-shield.

Skin and body protection

Wear protective gloves/clothing.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Odor	Mild
Color	Purple
Odor Threshold	No information available
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
Combustion/explosion hazards	Product does not sustain combustion (Test Method: ASTM D-4206)
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.
Solubility in other solvents	No information available
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	No information available

Decomposition temperature	No information available.
Explosive properties	No information available
Oxidizing properties	No information available
VOC content	No information available
Viscosity	No information available.
Density	No information available.

SECTION 10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous reactions	Vapors may form explosive mixtures with air.
Hazardous polymerization	None under normal processing.

Conditions to Avoid

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

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

None under normal use. Thermal decomposition can lead to release of irritating gases and vapors: Sulfur oxides, Carbon dioxide (CO₂), Carbon monoxide (CO).

SECTION 11. Toxicological information

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.

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

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

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.
Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Causes serious eye irritation.
Sensitization	No information available.
Mutagenic effects	No information available.
Carcinogenicity	Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage

Chemical Name	IARC	NTP	OSHA
ethanol 64-17-5	1	Known	X

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target Organ Effects	Eyes, Skin, Respiratory system.
Neurological effects	No information available.
Aspiration Hazard	No information available.

SECTION 12. Ecological information

Ecotoxicity

50% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
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 79 mg/L (Pimephales promelas) 96 h LC50 75 mg/L (Lepomis macrochirus) 96 h	EC50 47 mg/L (Daphnia magna) 24 h EC50 65 mg/L (Daphnia magna) 48 h
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

Persistence and degradability	No product level data available.
Bioaccumulation	Most components of this material are unlikely to bioaccumulate but some have not been tested.
Mobility	No information available

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

Other adverse effects

No information available.

SECTION 13. Disposal considerations

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

SECTION 15. Regulatory information**North American Inventory Listing**

Chemical Name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL
haematoxylin	Listed	Not Listed	Listed	Not Listed
propane-1,2-diol	Listed	Not Listed	Listed	Not Listed
acetic acid	Listed	Not Listed	Listed	Not Listed
ethanol	Listed	Not Listed	Listed	Not Listed

Canadian Workplace Hazardous Materials Information System (WHMIS) Classification

	Class B2 - Flammable Liquids Class D2B - Toxic Material at >= 1%
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SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances	CWA - Bioaccumulative Chemicals of Concern (BCCs)
acetic acid	5000 lb	Not Listed	Not Listed	Listed	Not Listed

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
acetic acid	5000 lb	Not Listed

California Proposition 65

Ethanol is only considered a Proposition 65 cancer hazard when it is ingested as a beverage. Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as a beverage.

Chemical Name	California Prop. 65
ethanol	Carcinogen Developmental

U.S. State Right-to-Know Regulations

This product contains the following U.S. State Right to Know chemicals:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
propane-1,2-diol	Listed	Not Listed	Listed
acetic acid	Listed	Listed	Listed
ethanol	Listed	Listed	Listed

U.S. FIFRA Label Information

This product does not contain any substances regulated as pesticides.

US Commerce Department - Export Administration Regulations Information

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

U.S. Drug Enforcement Administration Information

This product does not contain any substances regulated under the DEA.

SECTION 16. Other information

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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.

End of Safety Data Sheet