Hematoxylin II

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Hematoxylin II

Mat.-No./ Genisys-No. : 05277965001

Manufacturer or supplier's details

Company	:	Roche Diagnostics Limited Charles Avenue
Address	:	Burgess Hill RH15 9RY West Sussex
Telephone	:	+44 1444 256000
Telefax	:	+44 1444 256239
Emergency telephone number	:	+49(0)621-759-2012 oder +49(0)621-759-4848 oder +49(0)8856-60-2629

Emergency telephone number:

In case of emergencies: (Roche Diagnostics Ltd.)	:	Health, Safety & Environment - Product Safety / Vigilance -	+44 1444 256500 or +44 7802 260498 +44 1444 256561 or +44 7710 391653
Toxicology 24Hr help-line: Health Advice 24Hr help-line:	:	NPIS: NHS Direct: NHS 24:	+44 844 892 0111 +44 845 4647 +44 8454 242424

Recommended use of the chemical and restrictions on use

Restrictions on use : For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Physical state	liquid
Colour	reddish-violet

GHS Classification

Acute toxicity (Oral)	:	Category 4
Skin corrosion	:	Category 1A
Serious eye damage	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)

GHS Label element

Hazard pictograms :

Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
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.
P310 Immediately call a POISON CENTER or doctor/ physician.
P363 Wash contaminated clothing before reuse.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Carcinogenicity:

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Preparation

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
haematoxylin	517-28-2	>= 50 - < 70
ethane-1,2-diol	107-21-1	>= 20 - < 30
acetic acid	64-19-7	>= 10 - < 20

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Move to fresh air.

Move to fresh air.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	:	Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. To prevent leaks or spillages from spreading, provide a suitable liquid retention system.
Conditions for safe storage	:	Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	:	

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethane-1,2-diol	107-21-1	C	50 ppm 125 mg/m3	OSHA P0
acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		TWA	10 ppm 25 mg/m3	NIOSH REL
		ST	15 ppm 37 mg/m3	NIOSH REL
		TWA	10 ppm 25 mg/m3	OSHA Z-1
		TWA	10 ppm 25 mg/m3	OSHA P0

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection
Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	reddish-violet
pH	:	acidic
Melting point/range	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	> 93.3 °C
Flammability (solid, gas)	:	The product is not flammable.
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Solubility(ies)		
Water solubility	:	completely soluble
Auto-ignition temperature	:	no data available
Thermal decomposition	:	no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	no data available
Incompatible materials	:	no data available
Hazardous decomposition products	:	no data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate : 690.45 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate : > 40 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method

Components:

haematoxylin:
Acute oral toxicity : LD50 Oral rat: 400 mg/kg

acetic acid:
Acute oral toxicity : LD50 Oral rat: 3,310 mg/kg

Acute dermal toxicity : LD50 Dermal rabbit: 1016 µl/kg

Skin corrosion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Components:

haematoxylin:
Result: Irritating to skin.
Remarks: May cause skin irritation in susceptible persons.

acetic acid:
Result: Causes severe burns.
Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Components:

haematoxylin:
Result: Irritating to eyes.
Remarks: May cause irreversible eye damage.

acetic acid:
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

Components:

acetic acid:
Genotoxicity in vitro : Type: Chromosome aberration test in vitro
Method: Mutagenicity (in vitro mammalian cytogenetic test)
Remarks: In vitro tests did not show mutagenic effects

Germ cell mutagenicity-Assessment : Not mutagenic in Ames Test.

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT - single exposure

Components:

haematoxylin:
Exposure routes: Inhalation
Assessment: May cause respiratory irritation.

acetic acid:
Remarks: no data available

STOT - repeated exposure

Components:

haematoxylin:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

acetic acid:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Components:
haematoxylin:
no data available

acetic acid:
no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

Components:
haematoxylin :

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment **ethane-1,2-diol :**	:	no data available
Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l Exposure time: 96 h LC50 (Carassius auratus (goldfish)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	EC0 (Scenedesmus quadricauda (Green algae)): > 10,000 mg/l Exposure time: 7 d
Toxicity to bacteria	:	EC0 (Pseudomonas putida): > 10,000 mg/l Exposure time: 16 h
Ecotoxicology Assessment		
Acute aquatic toxicity	:	This product has no known ecotoxicological effects.
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects.
Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment **acetic acid :**	:	no data available
Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 410 mg/l Exposure time: 48 h NOEC (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Ecotoxicology Assessment		
Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	no data available

Persistence and degradability

Components:
ethane-1,2-diol :

Biodegradability	:	Biodegradation: 100 %

Exposure time: 28 d
Method: OECD Test Guideline 302

acetic acid :

Biodegradability : Biodegradation: 71 %
Exposure time: 5 d
Remarks: According to the results of tests of biodegradability this product is considered as being readily biodegradable.

Bioaccumulative potential

Components:
ethane-1,2-diol :
Partition coefficient: n-octanol/water : log Pow: -1.36
acetic acid :
Partition coefficient: n-octanol/water : log Pow: -0.31

Mobility in soil

no data available

Other adverse effects

no data available

Product:

Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International regulation

IATA-DGR
UN/ID No. : 2790

Proper shipping name	:	
Class	:	8
Packing group	:	III
Labels	:	8
Packing instruction (cargo aircraft)	:	856
Packing instruction (passenger aircraft)	:	852

IMDG-Code

UN number	:	2790
Proper shipping name	:	
Class	:	8
Packing group	:	III
Labels	:	8
EmS Code	:	,
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number	:	2790
Proper shipping name	:	Acetic acid solution
Class	:	8
Packing group	:	III
Labels	:	8
ERG Code	:	153
Marine pollutant	:	no

Special precautions for user

Remarks	:	no data available

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Toxic by ingestion, Corrosive to skin, Moderate eye irritant, Moderate respiratory irritant

WHMIS Classification : D1B: Toxic Material Causing Immediate and Serious Toxic Effects
Toxic Material Causing Other Toxic Effects
Corrosive Material

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)

Ethylene Glykol	107-21-1	5000	

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
ethane-1,2-diol 107-21-1 24 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
ethane-1,2-diol 107-21-1 24 %
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):
ethane-1,2-diol 107-21-1 24 %
acetic acid 64-19-7 16 %

Clean Water Act
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:
acetic acid 64-19-7 16 %
The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:
acetic acid 64-19-7 16 %
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

ethane-1,2-diol	107-21-1	20 - 30 %
acetic acid	64-19-7	10 - 20 %

Pennsylvania Right To Know

haematoxylin	517-28-2	50 - 70 %
ethane-1,2-diol	107-21-1	20 - 30 %
acetic acid	64-19-7	10 - 20 %
water	7732-18-5	1 - 5 %

New Jersey Right To Know

haematoxylin	517-28-2	50 - 70 %
ethane-1,2-diol	107-21-1	20 - 30 %
acetic acid	64-19-7	10 - 20 %
water	7732-18-5	1 - 5 %

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

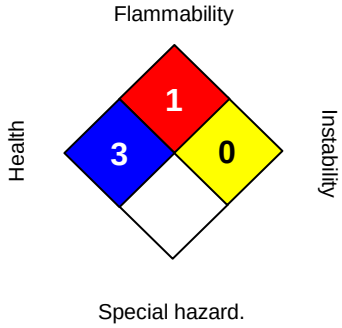
Inventories

AICS (Australia), DSL (Canada), IECSC (China), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

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.