

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # 786-1052

Hematoxylin Stain, Gill III (triple strength)

Size: 4L





Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017

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

1.1. Product identifier

Product form : Mixture

Product name : Hematoxylin Stain, Gill III (triple strength)

Product code : 075N
Product group : Blend

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./ G-Biosciences 9800 Page Avenue 63132-1429 Saint Louis - United States T 800-628-7730 - F 314-991-1504

technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	
United Kingdom	National Poisons Information Service Edinburgh Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 1A H314

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

2.2. Label elements

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

Hazard pictograms (CLP)



GHS05

CLP Signal word : Danger

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage. Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304+P340 - IF INHALED: Remove person to fresh air and keep 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.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

(10 =<C < 25) Skin Irrit. 2, H315 (25 =<C < 90) Skin Corr. 1B, H314

(90 = < C < 100) Skin Corr. 1A, H314

accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

J.Z. WIIALUIGS			
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Deionized water	(CAS-No.) 7732-18-5	50 - 80	Not classified
ethylene glycol	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index-No.) 603-027-00-1	10 - 50	Not classified
aluminium sulfate	(CAS-No.) 10043-01-3 (EC-No.) 233-135-0	5 - 10	Skin Corr. 1A, H314
acetic acid	(CAS-No.) 64-19-7 (EC-No.) 200-580-7 (EC Index-No.) 607-002-00-6	2 - 5	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Corr. 1A, H314
hematoxylin	(CAS-No.) 517-28-2 (EC-No.) 208-237-3	0.5 - 2	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
sodium iodate	(CAS-No.) 7681-55-2 (EC-No.) 231-672-5	0.05 - 0.5	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Specific concentration limits:			
Name	Product identifier	Specific co	oncentration limits
acetic acid	(CAS-No.) 64-19-7		5) Eye Irrit. 2, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

5/11/2017 2/9 EN (English)

(EC-No.) 200-580-7

(EC Index-No.) 607-002-00-6

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a

physician immediately.

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and First-aid measures after eye contact

easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Burns.

: Serious damage to eyes. Symptoms/effects after eve contact

Symptoms/effects after ingestion · Burns

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe

dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site

6.4. Reference to other sections

For further information refer to section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling Precautions for safe handling

: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this

product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

: Store locked up. Store in a well-ventilated place. Keep cool. Storage conditions

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethylene glycol (107-21-1)

EU - Occupational Exposure Limits		
IOELV TWA (mg/m³) 52 mg/m³		
IOELV TWA (ppm)	20 ppm	
IOELV STEL (mg/m³)	104 mg/m³	
IOELV STEL (ppm)	40 ppm	

5/11/2017 3/9 EN (English)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

United Kingdom - Occupational Exposure Limits					
WEL TWA (mg/m³)	10 mg/m³ 52 mg/m³				
WEL TWA (ppm)	20 ppm				
WEL STEL (mg/m³)	104 mg/m³				
WEL STEL (ppm)	40 ppm				
aluminium sulfate (10043-01-3)					
United Kingdom - Occupational Exposure Limits					
WEL TWA (mg/m³)	2 mg/m³				
acetic acid (64-19-7)					
EU - Occupational Exposure Limits					
IOELV TWA (mg/m³)	25 mg/m³				
IOELV TWA (ppm)	10 ppm				
IOELV STEL (mg/m³)	50 mg/m³				
IOELV STEL (ppm)	20 ppm				
United Kingdom - Occupational Exposure Limits	United Kingdom - Occupational Exposure Limits				
WEL TWA (mg/m³)	25 mg/m³				
WEL TWA (ppm)	10 ppm				
WEL STEL (mg/m³)	50 mg/m³				
NEL STEL (ppm) 20 ppm					
8.2. Exposure controls					

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:	
Protective gloves	
Eye protection:	
Safety glasses	
Skin and body protection:	
Wear suitable protective clothing	
Respiratory protection:	
In case of insufficient ventilation, wear suitable respiratory equipment	

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.	١. ا	n	format	ion (on l	basi	с р	hys	ical	and	C	hemi	cal	pro	oerti	es
----	------	---	--------	-------	------	------	-----	-----	------	-----	---	------	-----	-----	-------	----

Physical state : Liquid

Colour : No data available
Odour : No data available
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available

Flash point : 100 °C

Auto-ignition temperature : No data available Decomposition temperature : No data available

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

ethylene glycol (107-21-1)		
LD50 oral rat	7712 mg/kg bodyweight (according to BASF-internal standards, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s))	
LD50 dermal	> 3500 mg/kg bodyweight (Mouse, Male / female, Experimental value, Dermal)	
LC50 inhalation rat (mg/l)	> 2.5 mg/l (6 h, Rat, Male / female, Experimental value, Inhalation (aerosol))	

hematoxylin (517-28-2)	
LD50 oral rat	400 mg/kg (Rat, Literature study, Oral)

aluminium sulfate (10043-01-3)			
LD50 oral rat	2000 - 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Female, Experimental value of similar product, Oral, 14 day(s))		
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value of similar product, Dermal, 14 day(s))		
LC50 inhalation rat (mg/l)	> 5.09 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Readacross, Inhalation (aerosol), 3 day(s))		

acetic acid (64-19-7)		
LD50 oral rat 3310 mg/kg bodyweight (Rat, Male / female, Experimental value, Oral)		
LC50 inhalation rat (mg/l)	11.4 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Female, Experimental value, Inhalation (vapours), 14 day(s))	
Skin corrosion/irritation	: Causes severe skin burns and eye damage.	
Serious eye damage/irritation : Serious eye damage, category 1, implicit		
Respiratory or skin sensitisation : Not classified		

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12	1	- T	1	Y	itν

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

Acute aquatic toxicity : Not classified Chronic aquatic toxicity : Not classified

ethylene glycol (107-21-1)	
LC50 fish 1	40761 mg/l (96 h, Salmo gairdneri, Static system)
EC50 Daphnia 1	> 10000 mg/l (24 h, Daphnia magna)
EC50 96h algae (1)	6.5 - 13 g/l (Selenastrum capricornutum, Growth)

aluminium sulfate (10043-01-3)	
LC50 fish 1	> 87.5 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	> 200 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	14 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

acetic acid (64-19-7)	
LC50 fish 1	> 1000 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value)
EC50 Daphnia 1	> 1000 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h algae (1)	> 1000 mg/l (ISO 10253, Skeletonema costatum, Static system, Salt water, Experimental value, GLP)

12.2. Persistence and degradability

ethylene glycol (107-2 ^a	1_11	١

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.47 g O₂/g substance
Chemical oxygen demand (COD)	1.24 g O ₂ /g substance
ThOD	1.29 g O₂/g substance
BOD (% of ThOD)	0.36

hematoxylin (517-28-2)

Persistence and degradability	Biodegradability in water: no data available.

sodium iodate (7681-55-2)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

aluminium sulfate (10043-01-3)	
Persistence and degradability	Biodegradability: not applicable.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Chemical oxygen demand (COD)	Not applicable
acetic acid (64-19-7)	
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.6 - 0.74 g O ₂ /g substance
Chemical oxygen demand (COD)	1.03 g O ₂ /g substance
ThOD	1.07 g O ₂ /g substance
12.3. Bioaccumulative potential	
ethylene glycol (107-21-1)	10/701 1 1 1
BCF fish 1	10 (72 h, Leuciscus idus)
BCF other aquatic organisms 1	0.21 - 0.6 (Procambarus sp., Chronic)
BCF other aquatic organisms 2	190 (24 h, Algae)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Not bioaccumulative.
hematoxylin (517-28-2)	
Log Pow	0.71 (Calculated, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
	,
sodium iodate (7681-55-2)	
Log Pow	-7.18
Bioaccumulative potential	Not bioaccumulative.
-luminium	
aluminium sulfate (10043-01-3)	N. I
Bioaccumulative potential	No bioaccumulation data available.
acetic acid (64-19-7)	
BCF fish 1	3.16 (Pisces, Fresh water, QSAR)
Log Pow	-0.17 (Experimental value, 25 °C)
Bioaccumulative potential	Not bioaccumulative.
12.4. Mobility in soil	
ethylene glycol (107-21-1)	
Surface tension	48 mN/m (20 °C)
Ecology - soil	No (test)data on mobility of the substance available.
hematoxylin (517-28-2)	
Ecology - soil	No (test)data on mobility of the substance available.
aluminium sulfate (10043-01-3)	
Ecology - soil	No (test)data on mobility of the substance available.
	,
acetic acid (64-19-7)	
Surface tension	26.3 mN/m (30 °C)
Ecology - soil	Highly mobile in soil. May be harmful to plant growth, blooming and fruit formation.
12.5. Results of PBT and vPvB assessment	
Component	
ethylene glycol (107-21-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
5/11/2017	EN (English) 7/9

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

aluminium sulfate (10043-01-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
acetic acid (64-19-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Waste treatment methods.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN numberUN-No. (ADR): Not applicableUN-No. (IMDG): Not applicableUN-No. (IATA): Not applicableUN-No. (ADN): Not applicableUN-No. (RID): Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Ox. Sol. 2	Oxidising Solids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

Safety Data Sheet applicable for regions : GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

5/11/2017 EN (English) 9/9