

ENCES G-Biosciences, St Louis, MO, USA | 1-800-628-7730 | 1-314-991-6034 | technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # BTNM-0059

Nucleic dotMETRIC Basic Kit, G-bioscience

Size: 1 kit





Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 4/9/2014 Revision date: 5/11/2017 Version: 1.1

SECTION 1: Identification of the substan	ce/mixture and of the compan	y/undertakin	g		
1.1. Product identifier					
	roduct form : Mixture				
Product name	: Nucleic Acid Dilution Buffer				
Product code	: 102N				
Product group	: Blend				
1.2. Relevant identified uses of the substance	e or mixture and uses advised aga	linst			
1.2.1. Relevant identified uses					
Use of the substance/mixture	Research and development				
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.co	<u>m</u>				
1.4. Emergency telephone number					
Emergency number : Cl	nemtrec 1-800-424-9300 (USA/Canada),	+1-703-527-388	37 (Intl)		
SECTION 2: Hazards identification					
2.1. Classification of the substance or mixtur	e				
Classification according to Regulation (EC) No. 12	72/2008 [CLP]				
Not classified					
Adverse physicochemical, human health and envir	onmental effects				
To our knowledge, this product does not present any p		cordance with a	ond occupational hygiene and safety		
practice.	anticular hisk, provided it is handled in ac	cordance with go			
2.2. Label elements					
Labelling according to Regulation (EC) No. 1272/20	008 [CLP]				
No labelling applicable					
2.3. Other hazards					
No additional information available					
SECTION 3: Composition/information on	Ingredients				
3.1. Substances Not applicable					
3.2. Mixtures					
Name	Product identifier	%	Classification according to		
			Regulation (EC) No.		
			1272/2008 [CLP]		
Deionized water	(CAS-No.) 7732-18-5	>= 80			
Deionized water sodium acetate	, ,		1272/2008 [CLP]		
	(CAS-No.) 7732-18-5 (CAS-No.) 127-09-3 (EC-No.) 204-823-8	>= 80 2 - 5	1272/2008 [CLP] Not classified		

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effects,	both acute and delayed
No additional information available	
4.3. Indication of any immediate medical at	tention and special treatment needed
Treat symptomatically.	

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according to Regulation (EC) No. 1907/2006 (REACH) with i	its amendment Regulation (EU) 2015/830		
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 substa	ince 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 measure 6.1. Personal precautions, protective equipr			
6.1.1. For non-emergency personnel Emergency procedures	: Ventilate spillage area.		
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 a			
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. Wear personal protective equipment.		
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the		
	product.		
7.2. Conditions for safe storage, including a Storage conditions	ny incompatibilities : Store in a well-ventilated place. Keep cool.		
7.3. Specific end use(s) No additional information available			
SECTION 8: Exposure controls/persona	al protection		
8.1. Control parameters			
sodium acetate (127-09-3)			
United Kingdom - Occupational Exposure Limits			
WEL TWA (mg/m³)	10 mg/m³ 4 mg/m³		
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 respi	iratory equipment		
Environmental exposure controls:			

Avoid release to the environment.

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

SECTION 9: Physical and chemical	properties
9.1. Information on basic physical and c	hemical properties
Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
рН	: 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	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
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				
11.1. Information on toxicological effects				
Acute toxicity (oral)	: Not classified			
Acute toxicity (dermal)	: Not classified			
Acute toxicity (inhalation)	: Not classified			
sodium acetate (127-09-3)				
LD50 oral rat	5200 mg/kg (Rat, Literature study, Oral)			
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Literature study, Dermal)			
Skin corrosion/irritation	: Not classified			
Serious eye damage/irritation	: Not classified			
Respiratory or skin sensitisation	: Not classified			
Germ cell mutagenicity	: Not classified			
Carcinogenicity	: Not classified			
Reproductive toxicity	: Not classified			
STOT-single exposure	: Not classified			
STOT-repeated exposure	: Not classified			

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

Aspiration hazard

: Not classified

12.1. Toxicity			
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.		
Acute aquatic toxicity	: Not classified		
Chronic aquatic toxicity	: Not classified		
sodium acetate (127-09-3)			
LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)		
EC50 Daphnia 1	> 1000 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)		
ErC50 (algae)	> 1000 mg/l (ISO 10253, 72 h, Skeletonema costatum, Salt water, Experimental value, GLP)		
12.2. Persistence and degradability			
sodium acetate (127-09-3)			
Persistence and degradability	Readily biodegradable in water.		
Chemical oxygen demand (COD)	0.675 g O ₂ /g substance		
2.3. Bioaccumulative potential			
sodium acetate (127-09-3)			
BCF other aquatic organisms 1	3.162 (BCFWIN, Calculated value)		
Log Pow	-3.72 (Calculated, KOWWIN)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
2.4. Mobility in soil			
sodium acetate (127-09-3)			
Log Koc	0 (log Koc, SRC PCKOCWIN v1.66, Calculated value)		
Ecology - soil	Highly mobile in soil.		
2.5. Results of PBT and vPvB assessme	ent		
Component			
sodium acetate (127-09-3)	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 XII		

SECTION 13: Disposal consideratio	ns
13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.

SECTION 14: Transport information	bn	
In accordance with ADR / RID / IMDG / IATA	/ ADN	
14.1. UN number		
UN-No. (ADR)	: Not applicable	
UN-No. (IMDG)	: Not regulated	
UN-No. (IATA)	: Not regulated	
UN-No. (ADN)	: Not applicable	
UN-No. (RID)	: Not applicable	
14.2. UN proper shipping name		
Proper Shipping Name (ADR)	: Not applicable	
Proper Shipping Name (IMDG)	: Not regulated	
Proper Shipping Name (IATA)	: Not regulated	
Proper Shipping Name (ADN)	: Not applicable	
Proper Shipping Name (RID)	: Not applicable	

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14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not regulated
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not regulated
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 regulated
Packing group (IATA)	: Not regulated
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	
No data available	
Transport by sea	
Not regulated	
Air transport	
Not regulated	
Inland waterway transport	
No data available	
Rail transport	
No data available	
14.7. Transport in bulk according to Annex I	I 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

No additional information available

15.2. Chemical safety assessment No chemical safety assessment has been carried out

No chemical salety assessment has been carried out

SECTION 16: Other information

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.

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



Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 4/9/2014 Revision date: 5/11/2017 Version: 1.1

1.1. Product ide Product form	intinel	: Mixture		
Product name		: Nucleic Dye		
Product name		: 116N		
Product group		: Trade product		
1.2. Relevant ide	entified uses of the substan	ce or mixture and uses	advised against	
1.2.1. Relevant ide Use of the substand		: Research and developme	ent	
1.2.2. Uses advise	•			
Geno Technology, 9800 Page Avenue 53132-1429 Saint L	_ouis - United States	a sheet		
F 800-628-7730 - F echnical@GBiosci	- 314-991-1504 ences.com - www.GBiosciences.	com		
	telephone number			
Emergency numbe		Chemtrec 1-800-424-9300 (JSA/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	

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

: EUH210 - Safety data sheet available on request.

2.3. Other hazards

No additional information available

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

SECTION 3: Composition/information on ingredients				
3.1. Substances				
Not applicable				
3.2. Mixtures				
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
Deionized water	(CAS-No.) 7732-18-5	50 - 80	Not classified	
methylene blue, trihydrate	(CAS-No.) 7220-79-3 (EC-No.) 200-515-2	2 - 5	Acute Tox. 4 (Oral), H302	
sodium acetate	(CAS-No.) 127-09-3 (EC-No.) 204-823-8	2 - 5	Not classified	

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures First-aid measures after inhalation	Demonstration to final size and have a confinately further attains
	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effects,	both acute and delayed
No additional information available	
4.3. Indication of any immediate medical att	ention 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 substa	
Fire hazard	: Combustible liquid.
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
5 5 5	breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release measur	es
6.1. Personal precautions, protective equip	
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking.
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 a Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or
Methods for cleaning up	public waters.
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. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including an	ny incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection		
8.1. Control parameters		
sodium acetate (127-09-3)		
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	10 mg/m³ 4 mg/m³	
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 9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Colour	: Blue.	
Odour	: No data available	
Odour threshold	: No data available	
Н	: 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	: 65 °C	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
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.

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

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
Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity (oral)	: Not classified	
Acute toxicity (dermal)	: Not classified	
Acute toxicity (inhalation)	: Not classified	
sodium acetate (127-09-3)		
LD50 oral rat	5200 mg/kg (Rat, Literature study, Oral)	
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Literature study, Dermal)	
Skin corrosion/irritation	: Not classified	
Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitisation	: Not classified	
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	on
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified
methylene blue, trihydrate (7220-79-3))
LC50 fish 1	18 mg/l (96 h, Mystus vittatus, Anhydrous form)
EC50 Daphnia 1	2.26 mg/l (48 h, Daphnia magna, Anhydrous form)
<u> </u>	

sodium acetate (127-09-3)	
LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	> 1000 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	> 1000 mg/l (ISO 10253, 72 h, Skeletonema costatum, Salt water, Experimental value, GLP)
12.2. Persistence and degradability	
methylene blue, trihydrate (7220-79-3)	
Persistence and degradability	Biodegradability in water: no data available.

sodium acetate (127-09-3)	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	0.675 g O ₂ /g substance

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

12.3. Bioaccumulative potential	
methylene blue, trihydrate (7220-79-3)	
Bioaccumulative potential	Not bioaccumulative.

sodium acetate (127-09-3)		
BCF other aquatic organisms 1	3.162 (BCFWIN, Calculated value)	
Log Pow	-3.72 (Calculated, KOWWIN)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
12.4. Mobility in soil		
sodium acetate (127-09-3)		
Log Koc	0 (log Koc, SRC PCKOCWIN v1.66, Calculated value)	
Ecology - soil	Highly mobile in soil.	
12.5. Results of PBT and vPvB assessment		
Component		
sodium acetate (127-09-3)	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	
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	Ν
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
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 regulated
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not regulated
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 regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

Safety Data Sheet

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

according to Regulation (EC) No. 1907/2006 (REAC	CH) with its amendment Regulation (EU) 2015/830	
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		
No data available		
Transport by sea		
Not regulated		
Air transport		
Not regulated		
Inland waterway transport		
No data available		
Rail transport		
No data available		
14.7. Transport in bulk according to A	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

No additional information available

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 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed.
EUH210	Safety data sheet available on request.
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.



Nucleic Test strips Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017 Version: 1.1

SECTION 1: Identification of the substanc	e/mixture and of the company	/undertaking	9
1.1. Product identifier	Outlistence		
	Substance		
	Nucleic Test strips		
	122N		
Product group :	Trade product		
1.2. Relevant identified uses of the substance	or mixture and uses advised agai	nst	
1.2.1. Relevant identified uses			
Use of the substance/mixture : F	Research and development		
1.2.2. Uses advised against			
No additional information available			
1.3. Details of the supplier of the safety data sh	neet		
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 : Che	mtrec 1-800-424-9300 (USA/Canada), +	1-703-527-388	7 (Intl)
SECTION 2: Hazards identification			
2.1. Classification of the substance or mixture			
Classification coording to Devulation (EC) No. 4070	2000 ICI DI		
Classification according to Regulation (EC) No. 1272			
Not classified			
Not classified			
Adverse physicochemical, human health and enviro	nmental effects		
To our knowledge, this product does not present any pa	rticular risk, provided it is handled in acc	ordance with go	od occupational hygiene and safety
practice.			
2.2. Label elements			
Labelling according to Regulation (EC) No. 1272/200			
No labelling applicable	0 [CLF]		
2.3. Other hazards			
No additional information available			
SECTION 3: Composition/information on i	narodionte		
	ngrealents		
3.1. Substances			
Name	Product identifier	%	Classification according to
			Regulation (EC) No.
			1272/2008 [CLP]
Nucleic Test strips		100	Not classified
	I	I	1
3.2. Mixtures			
Not applicable			
SECTION 4: First aid measures			
4.1. Description of first aid measures			

4.1. Description of first aid measures		
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.	
First-aid measures after skin contact	: Wash skin with plenty of water.	
First-aid measures after eye contact	: Rinse eyes with water as a precaution.	
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.	
4.2. Most important symptoms and effects, both acute and delayed		
No additional information available		
4.3. Indication of any immediate medical attention and special treatment needed		

Treat symptomatically.

Nucleic Test strips Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with i	ts amendment Regulation (EU) 2015/830	
SECTION 5: Firefighting measures		
5.1. Extinguishing media Suitable extinguishing media	: Water spray. Dry powder. Foam.	
5.2. Special hazards arising from the substa		
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 measure 6.1. Personal precautions, protective equipm		
	nent and emergency procedures	
6.1.1. For non-emergency personnel Emergency procedures	: Ventilate spillage area.	
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 a	nd cleaning up	
Methods for cleaning up	: Mechanically recover the product.	
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. Wear personal protective equipment.	
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.	
7.2. Conditions for safe storage, including a Storage conditions	ny incompatibilities : Store in a well-ventilated place. Keep cool.	
7.3. Specific end use(s) No additional information available		
SECTION 8: Exposure controls/persona	I protection	
8.1. Control parameters No additional information available		
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			
9.1. Information on basic phy	9.1. Information on basic physical and chemical properties		
Physical state	: Solid		
Colour	: white.		
Odour	: No data available		

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

: No data available
: No data available
: No data available
: No data available
: Not applicable
: No data available
: Not applicable
: Not applicable
: No data available
: Non flammable.
: No data available
: No data available
: Not applicable
: No data available
: Not applicable

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	
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
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. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

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

5 5 (-)	5 (-)
12.2. Persistence and degradability No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available 12.5. Results of PBT and vPvB assessment	
No additional information available	
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 number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es) ADR	
ADR Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not regulated
	. Not regulated
IATA Transport hazard class(es) (IATA)	: Not regulated
ADN	. Not regulated
Transport hazard class(es) (ADN)	· Not applicable
	: Not applicable
RID Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
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	
No data available	
Transport by sea	
Not regulated	
Air transport	
Not regulated	
notrogulatou	

Safety Data Sheet

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

Inland waterway transport

No data available

Rail transport

No data available

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

No REACH Annex XVII restrictions

Nucleic Test strips is not on the REACH Candidate List

Nucleic Test strips is not on the REACH Annex XIV List

Nucleic Test strips is not 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.

Nucleic Test strips is 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

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.



Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 4/9/2014 Revision date: 5/11/2017 Version: 1.1

SECTION 1: Identification of the substan	ce/mixture and of the compan	y/undertakin	g		
1.1. Product identifier					
	roduct form : Mixture				
Product name	: Nucleic Acid Dilution Buffer				
Product code	: 102N				
Product group	: Blend				
1.2. Relevant identified uses of the substance	e or mixture and uses advised aga	linst			
1.2.1. Relevant identified uses					
Use of the substance/mixture	Research and development				
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.co	<u>m</u>				
1.4. Emergency telephone number					
Emergency number : Cl	nemtrec 1-800-424-9300 (USA/Canada),	+1-703-527-388	37 (Intl)		
SECTION 2: Hazards identification					
2.1. Classification of the substance or mixtur	e				
Classification according to Regulation (EC) No. 12	72/2008 [CLP]				
Not classified					
Adverse physicochemical, human health and envir	onmental effects				
To our knowledge, this product does not present any p		cordance with a	ond occupational hygiene and safety		
practice.	anticular hisk, provided it is handled in ac	cordance with go			
2.2. Label elements					
Labelling according to Regulation (EC) No. 1272/20	008 [CLP]				
No labelling applicable					
2.3. Other hazards					
No additional information available					
SECTION 3: Composition/information on	Ingredients				
3.1. Substances Not applicable					
3.2. Mixtures					
Name	Product identifier	%	Classification according to		
			Regulation (EC) No.		
			1272/2008 [CLP]		
Deionized water	(CAS-No.) 7732-18-5	>= 80			
Deionized water sodium acetate	, ,		1272/2008 [CLP]		
	(CAS-No.) 7732-18-5 (CAS-No.) 127-09-3 (EC-No.) 204-823-8	>= 80 2 - 5	1272/2008 [CLP] Not classified		

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effects,	both acute and delayed
No additional information available	
4.3. Indication of any immediate medical at	tention and special treatment needed
Treat symptomatically.	

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with i	its amendment Regulation (EU) 2015/830		
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 substa	ince 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 measure 6.1. Personal precautions, protective equipr			
6.1.1. For non-emergency personnel Emergency procedures	: Ventilate spillage area.		
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 a			
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. Wear personal protective equipment.		
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the		
	product.		
7.2. Conditions for safe storage, including a Storage conditions	ny incompatibilities : Store in a well-ventilated place. Keep cool.		
7.3. Specific end use(s) No additional information available			
SECTION 8: Exposure controls/persona	al protection		
8.1. Control parameters			
sodium acetate (127-09-3)			
United Kingdom - Occupational Exposure Limits			
WEL TWA (mg/m³)	10 mg/m³ 4 mg/m³		
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 respi	iratory equipment		
Environmental exposure controls:			

Avoid release to the environment.

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

SECTION 9: Physical and chemical	properties
9.1. Information on basic physical and c	hemical properties
Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
рН	: 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	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
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				
11.1. Information on toxicological effects				
Acute toxicity (oral)	: Not classified			
Acute toxicity (dermal)	: Not classified			
Acute toxicity (inhalation)	: Not classified			
sodium acetate (127-09-3)				
LD50 oral rat	5200 mg/kg (Rat, Literature study, Oral)			
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Literature study, Dermal)			
Skin corrosion/irritation	: Not classified			
Serious eye damage/irritation	: Not classified			
Respiratory or skin sensitisation	: Not classified			
Germ cell mutagenicity	: Not classified			
Carcinogenicity	: Not classified			
Reproductive toxicity	: Not classified			
STOT-single exposure	: Not classified			
STOT-repeated exposure	: Not classified			

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

Aspiration hazard

: Not classified

12.1. Toxicity			
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.		
Acute aquatic toxicity	: Not classified		
Chronic aquatic toxicity	: Not classified		
sodium acetate (127-09-3)			
LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)		
EC50 Daphnia 1	> 1000 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)		
ErC50 (algae)	> 1000 mg/l (ISO 10253, 72 h, Skeletonema costatum, Salt water, Experimental value, GLP)		
12.2. Persistence and degradability			
sodium acetate (127-09-3)			
Persistence and degradability	Readily biodegradable in water.		
Chemical oxygen demand (COD)	0.675 g O ₂ /g substance		
2.3. Bioaccumulative potential			
sodium acetate (127-09-3)			
BCF other aquatic organisms 1	3.162 (BCFWIN, Calculated value)		
Log Pow	-3.72 (Calculated, KOWWIN)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
2.4. Mobility in soil			
sodium acetate (127-09-3)			
Log Koc	0 (log Koc, SRC PCKOCWIN v1.66, Calculated value)		
Ecology - soil	Highly mobile in soil.		
2.5. Results of PBT and vPvB assessme	ent		
Component			
sodium acetate (127-09-3)	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 XII		

SECTION 13: Disposal consideratio	ns
13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.

SECTION 14: Transport information	bn	
In accordance with ADR / RID / IMDG / IATA	/ ADN	
14.1. UN number		
UN-No. (ADR)	: Not applicable	
UN-No. (IMDG)	: Not regulated	
UN-No. (IATA)	: Not regulated	
UN-No. (ADN)	: Not applicable	
UN-No. (RID)	: Not applicable	
14.2. UN proper shipping name		
Proper Shipping Name (ADR)	: Not applicable	
Proper Shipping Name (IMDG)	: Not regulated	
Proper Shipping Name (IATA)	: Not regulated	
Proper Shipping Name (ADN)	: Not applicable	
Proper Shipping Name (RID)	: Not applicable	

Safety Data Sheet

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

14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not regulated
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not regulated
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 regulated
Packing group (IATA)	: Not regulated
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	
No data available	
Transport by sea	
Not regulated	
Air transport	
Not regulated	
Inland waterway transport	
No data available	
Rail transport	
No data available	
14.7. Transport in bulk according to Annex I	I 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

No additional information available

15.2. Chemical safety assessment No chemical safety assessment has been carried out

No chemical salety assessment has been carried out

SECTION 16: Other information

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.

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



Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 4/9/2014 Revision date: 5/11/2017 Version: 1.1

1.1. Product ide Product form	intinel	: Mixture		
Product name		: Nucleic Dye		
Product name		: 116N		
Product group		: Trade product		
1.2. Relevant ide	entified uses of the substan	ce or mixture and uses	advised against	
1.2.1. Relevant ide Use of the substand		: Research and developme	ent	
1.2.2. Uses advise	•			
Geno Technology, 9800 Page Avenue 53132-1429 Saint L	_ouis - United States	a sheet		
F 800-628-7730 - F echnical@GBiosci	- 314-991-1504 ences.com - www.GBiosciences.	com		
	telephone number			
Emergency numbe		Chemtrec 1-800-424-9300 (JSA/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	

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

: EUH210 - Safety data sheet available on request.

2.3. Other hazards

No additional information available

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

SECTION 3: Composition/information on ingredients				
3.1. Substances				
Not applicable				
3.2. Mixtures				
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
Deionized water	(CAS-No.) 7732-18-5	50 - 80	Not classified	
methylene blue, trihydrate	(CAS-No.) 7220-79-3 (EC-No.) 200-515-2	2 - 5	Acute Tox. 4 (Oral), H302	
sodium acetate	(CAS-No.) 127-09-3 (EC-No.) 204-823-8	2 - 5	Not classified	

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures First-aid measures after inhalation	Demonstration to final size and have a confinately further attains
	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effects,	both acute and delayed
No additional information available	
4.3. Indication of any immediate medical att	ention 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 substa	
Fire hazard	: Combustible liquid.
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
5 5 5	breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release measur	es
6.1. Personal precautions, protective equip	
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking.
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 a Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or
Methods for cleaning up	public waters.
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. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including an	ny incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection		
8.1. Control parameters		
sodium acetate (127-09-3)		
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	10 mg/m³ 4 mg/m³	
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 9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Colour	: Blue.	
Odour	: No data available	
Odour threshold	: No data available	
Н	: 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	: 65 °C	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
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.

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

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
Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity (oral)	: Not classified	
Acute toxicity (dermal)	: Not classified	
Acute toxicity (inhalation)	: Not classified	
sodium acetate (127-09-3)		
LD50 oral rat	5200 mg/kg (Rat, Literature study, Oral)	
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Literature study, Dermal)	
Skin corrosion/irritation	: Not classified	
Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitisation	: Not classified	
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. Toxicity	
Ecology - general	 The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	Not classified
Chronic aquatic toxicity	Not classified
methylene blue, trihydrate (7220-79-3)	
LC50 fish 1	18 mg/l (96 h, Mystus vittatus, Anhydrous form)
EC50 Daphnia 1	2.26 mg/l (48 h, Daphnia magna, Anhydrous form)

sodium acetate (127-09-3)	
LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	> 1000 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	> 1000 mg/l (ISO 10253, 72 h, Skeletonema costatum, Salt water, Experimental value, GLP)
12.2. Persistence and degradability	
methylene blue, trihydrate (7220-79-3)	
Persistence and degradability	Biodegradability in water: no data available.

sodium acetate (127-09-3)	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	0.675 g O ₂ /g substance

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12.3. Bioaccumulative potential	
methylene blue, trihydrate (7220-79-3)	
Bioaccumulative potential	Not bioaccumulative.

sodium acetate (127-09-3)		
BCF other aquatic organisms 1	3.162 (BCFWIN, Calculated value)	
Log Pow	-3.72 (Calculated, KOWWIN)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
12.4. Mobility in soil		
sodium acetate (127-09-3)		
Log Koc	0 (log Koc, SRC PCKOCWIN v1.66, Calculated value)	
Ecology - soil	Highly mobile in soil.	
12.5. Results of PBT and vPvB assessment		
Component		
sodium acetate (127-09-3)	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	
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	Ν
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
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 regulated
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not regulated
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 regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

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

according to Regulation (EC) No. 1907/2006 (REAC	CH) with its amendment Regulation (EU) 2015/830	
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		
No data available		
Transport by sea		
Not regulated		
Air transport		
Not regulated		
Inland waterway transport		
No data available		
Rail transport		
No data available		
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

No additional information available

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 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed.
EUH210 Safety data sheet available on request.	
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.



Nucleic Test strips Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017 Version: 1.1

SECTION 1: Identification of the subs	tance/mixture and of the co	mpany/undertak	ing
1.1. Product identifier	. Cubatanaa		
Product form	: Substance		
Substance name	: Nucleic Test strips		
Product code	: 122N		
Product group	: Trade product		
1.2. Relevant identified uses of the substa	ance or mixture and uses advis	ed against	
1.2.1. Relevant identified uses			
Use of the substance/mixture	: Research and development		
1.2.2. Uses advised against			
No additional information available			
1.3. Details of the supplier of the safety da	ata 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.GBioscience	s.com		
1.4. Emergency telephone number			
Emergency number	: Chemtrec 1-800-424-9300 (USA/C	anada), +1-703-527- 3	8887 (Intl)
SECTION 2: Hazards identification			
2.1. Classification of the substance or mix	cture		
Classification according to Regulation (EC) No	. 1272/2008 [CLP]		
Not classified			
Adverse physicochemical, human health and e	nvironmental effects		
To our knowledge, this product does not present a		ed in accordance with	good occupational hygiene and safety
practice.	ny paraoalar nok, providou k lo harar		
2.2. Label elements			
Labelling according to Regulation (EC) No. 127	2/2008 [CLP]		
No labelling applicable			
2.3. Other hazards No additional information available			
SECTION 2. Composition/information	on ingradianta		
SECTION 3: Composition/information 3.1. Substances	on ingredients		
Name	Product identifier	%	Classification according to
			Regulation (EC) No.
			1272/2008 [CLP]
Nucleic Test strips		100	Not classified
3.2. Mixtures			
Not applicable			
SECTION 4: First aid measures			
4.1. Description of first aid measures			
in Bosonption of mat all medaules			

4.1. Description of first all measures		
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.	
First-aid measures after skin contact	: Wash skin with plenty of water.	
First-aid measures after eye contact	: Rinse eyes with water as a precaution.	
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.	
4.2. Most important symptoms and effects, both acute and delayed		
No additional information available		
4.3. Indication of any immediate medical attention and special treatment needed		

Treat symptomatically.

Nucleic Test strips Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with i	ts amendment Regulation (EU) 2015/830
SECTION 5: Firefighting measures	
5.1. Extinguishing media Suitable extinguishing media	: Water spray. Dry powder. Foam.
5.2. Special hazards arising from the substa	
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 measure 6.1. Personal precautions, protective equipm	
	nent and emergency procedures
6.1.1. For non-emergency personnel Emergency procedures	: Ventilate spillage area.
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 a	nd cleaning up
Methods for cleaning up	: Mechanically recover the product.
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. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including a Storage conditions	ny incompatibilities : Store in a well-ventilated place. Keep cool.
7.3. Specific end use(s) No additional information available	
SECTION 8: Exposure controls/persona	I protection
8.1. Control parameters No additional information available	
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 respi	ratory equipment
Environmental exposure controls: Avoid release to the environment.	

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and chemical properties		
Physical state	: Solid	
Colour	: white.	
Odour	: No data available	

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

: No data available
: No data available
: No data available
: No data available
: Not applicable
: No data available
: Not applicable
: Not applicable
: No data available
: Non flammable.
: No data available
: No data available
: Not applicable
: No data available
: Not applicable

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 informatio	n
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
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. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

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

5 5 (-)	5 (-)
12.2. Persistence and degradability No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available 12.5. Results of PBT and vPvB assessment	
No additional information available	
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 number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es) ADR	
ADR Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not regulated
	. Not regulated
IATA Transport hazard class(es) (IATA)	: Not regulated
ADN	. Not regulated
Transport hazard class(es) (ADN)	· Not applicable
	: Not applicable
RID Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
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	
No data available	
Transport by sea	
Not regulated	
Air transport	
Not regulated	
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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Inland waterway transport

No data available

Rail transport

No data available

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

No REACH Annex XVII restrictions

Nucleic Test strips is not on the REACH Candidate List

Nucleic Test strips is not on the REACH Annex XIV List

Nucleic Test strips is not 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.

Nucleic Test strips is 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

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.