19.02.2024	Kit components
Product code	Description
CLS760673	DNA 1K Reagent Kit
Components:	
700781	HT DNA 1K GEL MATRIX SOLUTION
700784	HT DNA 1K LADDER SOLUTION
701510	HT DNA 1K MODIFIED MARKER SOLUTION
701637	HT DNA HISENS DYE CONCENTRATE

HT DNA STORAGE BUFFER

720170



Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

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

· 1.1 Product identifier

· Trade name: HT DNA 1K GEL MATRIX SOLUTION

· Product number: 700781, 700782

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

· **Product category** PC21 Laboratory chemicals

· Application of the substance / the mixture Laboratory chemicals

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Revvity, Inc 549 Albany Street Boston, MA 02118

· Further information obtainable from:

US Technical Support 800-762-4000

· 1.4 Emergency telephone number:

If inside USA, call CHEMTREC at 1-800-424-9300 If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · 2.1.1 Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

2.1.3 Additional information: For the wording of the relevant risk phrases refer to section 16.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



- · Signal word Warning
- · Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· Precautionary statements

P264 Wash thoroughly after handling.P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

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Trade name: HT DNA 1K GEL MATRIX SOLUTION

· vPvB: Not applicable.

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 1310-73-2	sodium hydroxide	1-2.5%
EINECS: 215-185-5	♦ Skin Corr. 1A, H314; ↑ Acute Tox. 4, H302	
Index number: 011-002-00-6	Specific concentration limits: Skin Corr. 1A; H314: C≥5%	
	Skin Corr. 1B; H314: 2 % ≤ C < 5 %	
	Skin Irrit. 2; H315: 0.5 % ≤ C < 2 %	
	<i>Eye Irrit. 2; H319: 0.5 %</i> ≤ <i>C</i> < 2 <i>%</i>	

· Additional information: For the wording of the relevant risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

EU

Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

Trade name: HT DNA 1K GEL MATRIX SOLUTION

(Contd. of page 2)

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

No special precautions are necessary if used correctly.

- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage.
- Requirements to be met by storerooms and containers: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container tightly sealed.
- · Storage class: 8 A
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Respiratory protection: Suitable respiratory protective device recommended.
- · Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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Trade name: HT DNA 1K GEL MATRIX SOLUTION

· Eye/face protection

(Contd. of page 3)



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state Fluid

· Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 Melting point/freezing point: Undetermined.

· Boiling point or initial boiling point and boiling range 81 °C

· Flammability Not applicable.

· Lower and upper explosion limit

· Lower: Not determined.
· Upper: Not determined.
· Flash point: 70 °C

• Decomposition temperature: Not determined. • pH Not determined.

· Viscosity:

Kinematic viscosity
 Dynamic:
 Not determined.
 Not determined.

· Solubility

• water: Not miscible or difficult to mix.

• Partition coefficient n-octanol/water (log value) Not determined.

· Vapour pressure at 20 °C: 23 hPa

· Density and/or relative density

Density: Not determined.
Relative density Not determined.
Vapour density Not determined.

· 9.2 Other information

· Appearance:

· Form: Fluid

· Important information on protection of health and

environment, and on safety.

• Ignition temperature: Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

· Solvent content:

· Water: 91.4 %
 · Solids content: 2.6 %

· Change in condition

• Evaporation rate Not determined.

Information with regard to physical hazard classes

Explosives Void
Flammable gases Void
Aerosols Void
Oxidising gases Void

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Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

Trade name: HT DNA 1K GEL MATRIX SOLUTION

(Contd. of page 4)

· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable	gases
in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.
- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.

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Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

Trade name: HT DNA 1K GEL MATRIX SOLUTION

(Contd. of page 5)

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

· 12.7 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Hand over to hazardous waste disposers.

Must be specially treated adhering to official regulations.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14.1 UN number or ID number ADR, IMDG, IATA	UN1719
14.2 UN proper shipping name ADR	1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUN HYDROXIDE)
IMDG, IATA	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	8 Corrosive substances.
Label	8
14.4 Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Corrosive substances.
Hazard identification number (Kemler code):	80
EMS Number:	F- A , S - B
Segregation groups	(SGG18) Alkalis
Stowage Category	A
Segregation Code	SG22 Stow "away from" ammonium salts SG35 Stow "separated from" SGG1-acids
14.7 Maritime transport in bulk according to IM	
instruments	Not applicable.

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Trade name: HT DNA 1K GEL MATRIX SOLUTION

	(Contd. of page
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	E
· IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUL HYDROXIDE), 8, III

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · *Directive 2012/18/EU*
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information provided in this safety data sheet is based on our current knowledge, and is believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be regarded as a warranty or specification of quality. All materials may present unknown hazards and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards that exist. Revvity, Inc. cannot be held liable for any damage resulting from handling or contact with the product.

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Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

Trade name: HT DNA 1K GEL MATRIX SOLUTION

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· Abbreviations and acronyms:

 $ADR: Accord\ relatif\ au\ transport\ international\ des\ marchandises\ dangereuses\ par\ route\ (European\ Agreement\ Concerning\ the\ International\ Concerning\ the\ Concern$

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

- FH



Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

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

· 1.1 Product identifier

· Trade name: HT DNA 1K LADDER SOLUTION

· Product number: 700784, 701600

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

· **Product category** PC21 Laboratory chemicals

· Application of the substance / the mixture Laboratory chemicals

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Revvity, Inc 549 Albany Street Boston, MA 02118

· Further information obtainable from:

US Technical Support 800-762-4000

· 1.4 Emergency telephone number:

If inside USA, call CHEMTREC at 1-800-424-9300 If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · 2.1.1 Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.
- · Dangerous components: Void
- · Additional information: For the wording of the relevant risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: If skin irritation continues, consult a doctor.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

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Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

Trade name: HT DNA 1K LADDER SOLUTION

(Contd. of page 1)

• 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling No special measures required.
- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and containers: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Storage class: 12
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

- · Respiratory protection: Not required.
- · Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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Trade name: HT DNA 1K LADDER SOLUTION

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· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection Goggles recommended during refilling

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state Fluid

• Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 Melting point/freezing point: Undetermined.
 Boiling point or initial boiling point and boiling range Undetermined.
 Flammability Not applicable.

· Lower and upper explosion limit

Lower: Not determined.
 Upper: Not determined.
 Flash point: Not applicable.
 Decomposition temperature: Not determined.
 pH Not determined.

· Viscosity:

Kinematic viscosityDynamic:Not determined.Not determined.

·Solubility

• water: Not miscible or difficult to mix.

• Partition coefficient n-octanol/water (log value)
• Vapour pressure:

Not determined.

Not determined.

Density and/or relative density

Density: Not determined.
 Relative density Not determined.
 Vapour density Not determined.

· 9.2 Other information

· Appearance:

· Form: Fluid

· Important information on protection of health and

environment, and on safety.

• **Ignition temperature:** Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

· Change in condition

• Evaporation rate Not determined.

· Information with regard to physical hazard classes

Explosives Void
Flammable gases Void
Aerosols Void
Oxidising gases Void

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Trade name: HT DNA 1K LADDER SOLUTION

(Contd. of page 3)

· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable	gases
in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.

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Trade name: HT DNA 1K LADDER SOLUTION

(Contd. of page 4)

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

· 12.7 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Smaller quantities can be disposed of with household waste.

Must be specially treated adhering to official regulations.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information	ion	
· 14.1 UN number or ID number · ADR, IMDG, IATA	Void	
· 14.2 UN proper shipping name · ADR, IMDG, IATA	Void	
· 14.3 Transport hazard class(es)		
· ADR, ADN, IMDG, IATA · Class	Void	
· 14.4 Packing group · ADR, IMDG, IATA	Void	
14.5 Environmental hazards:	Not applicable.	
· 14.6 Special precautions for user	Not applicable.	
· 14.7 Maritime transport in bulk according instruments	g to IMO Not applicable.	
· UN "Model Regulation":	Void	

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

(Contd. on page 6)

Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

Trade name: HT DNA 1K LADDER SOLUTION

· REGULATION (EU) 2019/1148

(Contd. of page 5)

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information provided in this safety data sheet is based on our current knowledge, and is believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be regarded as a warranty or specification of quality. All materials may present unknown hazards and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards that exist. Revvity, Inc. cannot be held liable for any damage resulting from handling or contact with the product.

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

- EU



Printing date 19.02.2024 Version number 1 Revision: 18.05.2023

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

· 1.1 Product identifier

· Trade name: HT DNA 1K MODIFIED MARKER SOLUTION

· Product number: 701510, 701611

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

· **Product category** PC21 Laboratory chemicals

· Application of the substance / the mixture Laboratory chemicals

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Revvity, Inc 549 Albany Street Boston, MA 02118

· Further information obtainable from:

US Technical Support 800-762-4000

· 1.4 Emergency telephone number:

If inside USA, call CHEMTREC at 1-800-424-9300 If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · 2.1.1 Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

2.1.3 Additional information: For the wording of the relevant risk phrases refer to section 16.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· Precautionary statements

P264 Wash thoroughly after handling.P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

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Trade name: HT DNA 1K MODIFIED MARKER SOLUTION

· vPvB: Not applicable.

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 1310-73-2	sodium hydroxide	1-2.5%
EINECS: 215-185-5	♦ Skin Corr. 1A, H314; ♦ Acute Tox. 4, H302	
Index number: 011-002-00-6	Specific concentration limits: Skin Corr. 1A; H314: C≥5%	
	Skin Corr. 1B; H314: 2 % ≤ C < 5 %	
	Skin Irrit. 2; H315: 0.5 % ≤ C < 2 %	
	<i>Eye Irrit. 2; H319: 0.5 %</i> ≤ <i>C</i> < 2 <i>%</i>	

· Additional information: For the wording of the relevant risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

EU ·

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Trade name: HT DNA 1K MODIFIED MARKER SOLUTION

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SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

No special precautions are necessary if used correctly.

- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage.
- Requirements to be met by storerooms and containers: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container tightly sealed.
- · Storage class: 8 B
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · **Respiratory protection:** Suitable respiratory protective device recommended.
- · Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

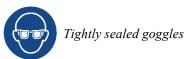
(Contd. on page 4)

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Trade name: HT DNA 1K MODIFIED MARKER SOLUTION

(Contd. of page 3)

· Eye/face protection



SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state Fluid

· Colour: According to product specification

• Odour: Characteristic
• Odour threshold: Not determined.

• Melting point/freezing point: 0 °C • Boiling point or initial boiling point and boiling range 100 °C

· Flammability Not applicable.

· Lower and upper explosion limit

Lower:

Not determined.

Upper:
Not determined.

Flash point:
Decomposition temperature:
Not applicable.
Not determined.

Not determined.

Not determined.

· Viscosity:

Kinematic viscosityDynamic:Not determined.Not determined.

· Solubility

• water: Not miscible or difficult to mix.

• Partition coefficient n-octanol/water (log value) Not determined.

· Vapour pressure at 20 °C: 23 hPa

· Density and/or relative density

• Density at 20 °C: 1 g/cm^3

Relative densityVapour densityNot determined.Not determined.

9.2 Other information

· Appearance:

· Form: Fluid

· Important information on protection of health and

environment, and on safety.

• Ignition temperature: Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

· Solvent content:

• Water: 96.4 %
 • Solids content: 2.6 %
 • Molecular weight 18.02 g/mol

· Change in condition

• Evaporation rate Not determined.

· Information with regard to physical hazard classes

Explosives Void
Flammable gases Void
Aerosols Void

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Trade name: HT DNA 1K MODIFIED MARKER SOLUTION

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· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammab	le gases
in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.
- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.

(Contd. on page 6)

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Trade name: HT DNA 1K MODIFIED MARKER SOLUTION

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- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

· 12.7 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Hand over to hazardous waste disposers.

Must be specially treated adhering to official regulations.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14.1 UN number or ID number	
ADR, IMDG, IATA	UN1719
14.2 UN proper shipping name	
ADR	1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUI HYDROXIDE)
IMDG, IATA	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	8 Corrosive substances.
Lahel	8
14.4 Packing group	
ADR, IMDG, IATA	III
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Corrosive substances.
Hazard identification number (Kemler code):	80
EMS Number:	F- A , S - B
Segregation groups	(SGG18) Alkalis
Stowage Category	A
Segregation Code	SG22 Stow "away from" ammonium salts
	SG35 Stow "separated from" SGG1-acids
14.7 Maritime transport in bulk according to IM	10
instruments	Not applicable.

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Trade name: HT DNA 1K MODIFIED MARKER SOLUTION

	(Contd. of page
Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
• • •	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	E
· IMDG	
Limited quantities (LQ)	5L
Excepted quantities (\widetilde{EQ})	Code: El
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIU)
-	HYDROXIDE), 8, III

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information provided in this safety data sheet is based on our current knowledge, and is believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be regarded as a warranty or specification of quality. All materials may present unknown hazards and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards that exist. Revvity, Inc. cannot be held liable for any damage resulting from handling or contact with the product.

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Trade name: HT DNA 1K MODIFIED MARKER SOLUTION

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· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

- FH



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

· 1.1 Product identifier

· Trade name: HT DNA HISENS DYE CONCENTRATE

· Product number: 701637

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

· **Product category** PC21 Laboratory chemicals

· Application of the substance / the mixture Laboratory chemicals

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Revvity, Inc 549 Albany Street Boston, MA 02118

· Further information obtainable from:

US Technical Support 800-762-4000

· 1.4 Emergency telephone number:

If inside USA, call CHEMTREC at 1-800-424-9300 If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · 2.1.1 Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

2.1.3 Additional information: For the wording of the relevant risk phrases refer to section 16.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· Precautionary statements

P264 Wash thoroughly after handling.P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

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Trade name: HT DNA HISENS DYE CONCENTRATE

· vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

- . 3 2 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous componen

CAS: 67-68-5 dimethyl sulfoxide *EINECS:* 200-664-3

1 Skin Irrit. 2, H315; Eye Irrit. 2, H319

75-100%

Additional information: For the wording of the relevant risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- 6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

No special precautions are necessary if used correctly.

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Trade name: HT DNA HISENS DYE CONCENTRATE

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- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and containers: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container tightly sealed.
- · Storage class: 10
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Respiratory protection: Suitable respiratory protective device recommended.
- · Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Physical state Fluid

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Trade name: HT DNA HISENS DYE CONCENTRATE

	(Contd. of pag
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.
Melting point/freezing point:	18.45 °C
Boiling point or initial boiling point and boiling rang	ge 189 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	1.8 Vol %
Upper:	63 Vol %
Flash point:	95 °C
Auto-ignition temperature:	270 °C
Decomposition temperature:	Not determined.
рН	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Not miscible or difficult to mix.
water. Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	2.5 hPa
Density and/or relative density	2.3 ni u
	1.1 a/am3
Density at 20 °C:	1.1 g/cm³ Not determined.
Relative density	
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Fluid
Important information on protection of health ar	nd
environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Solvent content:	The same of the sa
Organic solvents:	100.0 %
Molecular weight	78.13 g/mol
Change in condition	70.13 g/moi
Evaporation rate	Not determined.
Lyuporunon rute	ivoi ueiei mineu.
Information with regard to physical hazard classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Seij-neating substances and mixtures Substances and mixtures, which emit flammable gas	
Substances and mixtures, which ema Jiammable gas in contact with water	es Void
	voia Void
Oxidising liquids	
Oxidising solids	Void

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Trade name: HT DNA HISENS DYE CONCENTRATE

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Organic peroxides
 Corrosive to metals
 Desensitised explosives

Void
Void

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.
- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

· 12.7 Other adverse effects No further relevant information available.

- EU

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Trade name: HT DNA HISENS DYE CONCENTRATE

(Contd. of page 5)

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers.

Must be specially treated adhering to official regulations.

- · Uncleaned packaging:
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport informati		
14.1 UN number or ID number ADR, IMDG, IATA	Void	
14.2 UN proper shipping name ADR, IMDG, IATA	Void	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA Class	Void	
14.4 Packing group ADR, IMDG, IATA	Void	
14.5 Environmental hazards:	Not applicable.	
14.6 Special precautions for user	Not applicable.	
14.7 Maritime transport in bulk according instruments	g to IMO Not applicable.	
UN "Model Regulation":	Void	

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

(Contd. on page 7)

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Trade name: HT DNA HISENS DYE CONCENTRATE

(Contd. of page 6)

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

• 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information provided in this safety data sheet is based on our current knowledge, and is believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be regarded as a warranty or specification of quality. All materials may present unknown hazards and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards that exist. Revvity, Inc. cannot be held liable for any damage resulting from handling or contact with the product.

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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Skin Irrit. 2: Skin corrosion/irritation – Category 2

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- FII



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

· 1.1 Product identifier

· Trade name: HT DNA STORAGE BUFFER

· Product number: 720170

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

· **Product category** PC21 Laboratory chemicals

· Application of the substance / the mixture Laboratory chemicals

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Revvity, Inc 549 Albany Street Boston, MA 02118

· Further information obtainable from:

US Technical Support 800-762-4000

· 1.4 Emergency telephone number:

If inside USA, call CHEMTREC at 1-800-424-9300 If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · 2.1.1 Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

2.1.3 Additional information: For the wording of the relevant risk phrases refer to section 16.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· Precautionary statements

P264 Wash thoroughly after handling.P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

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· vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

- . 3 2 Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 1310-73-2	sodium hydroxide	1-2.5%
EINECS: 215-185-5	🔗 Skin Corr. 1A, H314; 🕔 Acute Tox. 4, H302	
Index number: 011-002-00-6	Specific concentration limits: Skin Corr. 1A; H314: C≥5%	
	Skin Corr. 1B; H314: 2 % ≤ C < 5 %	
	Skin Irrit. 2; H315: 0.5 % ≤ C < 2 %	
	Eye Irrit. 2; H319: 0.5 % ≤ C < 2 %	

· Additional information: For the wording of the relevant risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

No special precautions are necessary if used correctly.

- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage.
- Requirements to be met by storerooms and containers: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container tightly sealed.
- · Storage class: 8 B
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Respiratory protection: Suitable respiratory protective device recommended.
- · Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye/face protection

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Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state Fluid

· Colour: According to product specification

• Odour: Characteristic
• Odour threshold: Not determined.

· Melting point/freezing point: $0 \, {}^{\circ}C$

· Boiling point or initial boiling point and boiling range 100 °C

· Flammability Not applicable.

· Lower and upper explosion limit

Lower:

Upper:
Flash point:
Decomposition temperature:
pH

Not determined.

Not applicable.
Not determined.

Not determined.
Not determined.

· Viscosity:

Kinematic viscosityDynamic:Not determined.Not determined.

· Solubility

• water: Not miscible or difficult to mix.

• Partition coefficient n-octanol/water (log value) Not determined.

· Vapour pressure at 20 °C: 23 hPa

· Density and/or relative density

• Density at 20 °C: 1 g/cm^3

Relative densityVapour densityNot determined.Not determined.

9.2 Other information

· Appearance:

· Form: Fluid

· Important information on protection of health and

environment, and on safety.

• Ignition temperature: Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

· Solvent content:

• Water: 97.4 %
 • Solids content: 2.6 %
 • Molecular weight 18.02 g/mol

· Change in condition

• Evaporation rate Not determined.

Information with regard to physical hazard classes

Explosives Void
Flammable gases Void
Aerosols Void

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· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
· Pyrophoric solids	Void
Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammab	le gases
in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.
- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.

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- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

· 12.7 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Hand over to hazardous waste disposers.

Must be specially treated adhering to official regulations.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14.1 UN number or ID number ADR, IMDG, IATA	UN1719
14.2 UN proper shipping name ADR	1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)
IMDG, IATA	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
· Class · Label	8 Corrosive substances. 8
· 14.4 Packing group · ADR, IMDG, IATA	III
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Corrosive substances.
Hazard identification number (Kemler code):	80
EMS Number:	F-A,S-B
Segregation groups	(SGG18) Alkalis
Stowage Category	A
Segregation Code	SG22 Stow "away from" ammonium salts SG35 Stow "separated from" SGG1-acids
14.7 Maritime transport in bulk according to IM	10
instruments	Not applicable.

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Trade name: HT DNA STORAGE BUFFER

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Transport/Additional information:	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	E
· IMDG	
Limited quantities (LQ)	5L
Excepted quantities (\widetilde{EQ})	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUI
	HYDROXIDE), 8, III

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · *Directive 2012/18/EU*
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information provided in this safety data sheet is based on our current knowledge, and is believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be regarded as a warranty or specification of quality. All materials may present unknown hazards and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards that exist. Revvity, Inc. cannot be held liable for any damage resulting from handling or contact with the product.

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