

# SAFETY DATA SHEET



AccuScript High Fidelity Reverse Transcriptase, Part Number 600089

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

### 1.1 Product identifier

**Product name** : AccuScript High Fidelity Reverse Transcriptase, Part Number 600089  
**Part no. (chemical kit)** : 600089  
**Part no.** : 10X AccuScript RT 600089-52  
Buffer  
100 mM DTT 600089-53  
AccuScript High Fidelity RT 600089-54

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

**Material uses** : Analytical reagent.  
 10X AccuScript RT Buffer 0.1 ml  
100 mM DTT 0.1 ml  
AccuScript High Fidelity RT 0.05 ml (50 reactions)

### 1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG  
Hewlett-Packard-Str. 8  
76337 Waldbronn  
Germany  
0800 603 1000

**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(44)-870-8200418

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** :  10X AccuScript RT Mixture  
Buffer  
100 mM DTT Mixture  
AccuScript High Fidelity RT Mixture

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

Not classified.

**Ingredients of unknown toxicity** :  10X AccuScript RT Buffer Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 10 - 30%  
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%  
Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%  
100 mM DTT Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%  
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%

**Date of issue/Date of revision** : 26/04/2018

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**SECTION 2: Hazards identification**

AccuScript High Fidelity RT Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%

**Ingredients of unknown ecotoxicity** : 10X AccuScript RT Buffer Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 7.9%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements**

**Signal word** : 10X AccuScript RT Buffer No signal word.  
100 mM DTT No signal word.  
AccuScript High Fidelity RT No signal word.

**Hazard statements** : 10X AccuScript RT Buffer No known significant effects or critical hazards.  
100 mM DTT No known significant effects or critical hazards.  
AccuScript High Fidelity RT No known significant effects or critical hazards.

**Precautionary statements**

**Prevention** : 10X AccuScript RT Buffer Not applicable.  
100 mM DTT Not applicable.  
AccuScript High Fidelity RT Not applicable.

**Response** : 10X AccuScript RT Buffer Not applicable.  
100 mM DTT Not applicable.  
AccuScript High Fidelity RT Not applicable.

**Storage** : 10X AccuScript RT Buffer Not applicable.  
100 mM DTT Not applicable.  
AccuScript High Fidelity RT Not applicable.

**Disposal** : 10X AccuScript RT Buffer Not applicable.  
100 mM DTT Not applicable.  
AccuScript High Fidelity RT Not applicable.

**Hazardous ingredients** : 10X AccuScript RT Buffer Not applicable.  
100 mM DTT Not applicable.

**Supplemental label elements** : 10X AccuScript RT Buffer Safety data sheet available on request.  
100 mM DTT Safety data sheet available on request.  
AccuScript High Fidelity RT Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : 10X AccuScript RT Buffer Not applicable.  
100 mM DTT Not applicable.  
AccuScript High Fidelity RT Not applicable.

**Special packaging requirements**

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## SECTION 2: Hazards identification

**Tactile warning of danger** : 10X AccuScript RT Buffer Not applicable.  
 100 mM DTT Not applicable.  
 AccuScript High Fidelity RT Not applicable.

### 2.3 Other hazards

**Other hazards which do not result in classification** : 10X AccuScript RT Buffer None known.  
 100 mM DTT None known.  
 AccuScript High Fidelity RT None known.

## SECTION 3: Composition/information on ingredients

**3.1 Substances** : 10X AccuScript RT Buffer Mixture  
 100 mM DTT Mixture  
 AccuScript High Fidelity RT Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
<b>10X AccuScript RT Buffer</b> 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	EC: 214-684-5 CAS: 1185-53-1	<10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
<b>100 mM DTT</b> (R*,R*)-1,4-Dimercaptobutane-2, 3-diol	EC: 222-468-7 CAS: 3483-12-3	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3, H412	[1]
<b>AccuScript High Fidelity RT</b> Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.  <b>See Section 16 for the full text of the H statements declared above.</b>	[2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

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**SECTION 4: First aid measures**

<b>Eye contact</b>	: 10X AccuScript RT Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	100 mM DTT	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	AccuScript High Fidelity RT	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Inhalation</b>	: 10X AccuScript RT Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	100 mM DTT	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	AccuScript High Fidelity RT	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	: 10X AccuScript RT Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	100 mM DTT	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	AccuScript High Fidelity RT	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: 10X AccuScript RT Buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	100 mM DTT	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	AccuScript High Fidelity RT	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	: 10X AccuScript RT Buffer	No action shall be taken involving any personal risk or without suitable training.
	100 mM DTT	No action shall be taken involving any personal risk or without suitable training.
	AccuScript High Fidelity RT	No action shall be taken involving any personal risk or without suitable training.

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

**Potential acute health effects**

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**SECTION 4: First aid measures**

<b>Eye contact</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Inhalation</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

<b>Eye contact</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.
<b>Inhalation</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.
<b>Skin contact</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.
<b>Ingestion</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.

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

<b>Notes to physician</b>	: 10X AccuScript RT Buffer  100 mM DTT  AccuScript High Fidelity RT	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific treatment. No specific treatment. No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: 10X AccuScript RT Buffer	Use an extinguishing agent suitable for the surrounding fire.
	100 mM DTT	Use an extinguishing agent suitable for the surrounding fire.
	AccuScript High Fidelity RT	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: 10X AccuScript RT Buffer	None known.
	100 mM DTT	None known.
	AccuScript High Fidelity RT	None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	: 10X AccuScript RT Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	100 mM DTT	In a fire or if heated, a pressure increase will occur and the container may burst.
	AccuScript High Fidelity RT	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	: 10X AccuScript RT Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	100 mM DTT	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	AccuScript High Fidelity RT	Decomposition products may include the following materials: carbon dioxide carbon monoxide

### 5.3 Advice for firefighters

<b>Special precautions for fire-fighters</b>	: 10X AccuScript RT Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	100 mM DTT	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	AccuScript High Fidelity RT	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	: 10X AccuScript RT Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	100 mM DTT	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	AccuScript High Fidelity RT	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full

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## SECTION 5: Firefighting measures

face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: 10X AccuScript RT Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	100 mM DTT	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	AccuScript High Fidelity RT	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: 10X AccuScript RT Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	100 mM DTT	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	AccuScript High Fidelity RT	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: 10X AccuScript RT Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
100 mM DTT	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AccuScript High Fidelity RT	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and material for containment and cleaning up

<b>Methods for cleaning up</b> : 10X AccuScript RT Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
100 mM DTT	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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**SECTION 6: Accidental release measures**

AccuScript High Fidelity RT  
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

**Protective measures** : 10X AccuScript RT Buffer  
Put on appropriate personal protective equipment (see Section 8).  
100 mM DTT  
Put on appropriate personal protective equipment (see Section 8).  
AccuScript High Fidelity RT  
Put on appropriate personal protective equipment (see Section 8).  
**Advice on general occupational hygiene** : 10X AccuScript RT Buffer  
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.  
100 mM DTT  
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.  
AccuScript High Fidelity RT  
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage** : 10X AccuScript RT Buffer  
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.  
100 mM DTT  
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.  
AccuScript High Fidelity  
Store in accordance with local regulations. Store in original



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## SECTION 7: Handling and storage

RT	container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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### 7.3 Specific end use(s)

<b>Recommendations</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not applicable. Not applicable. Not applicable.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
AccuScript High Fidelity RT Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

No DNELs/DMELs available.

#### PNECs

No PNECs available

### 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Individual protection measures

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**SECTION 8: Exposure controls/personal protection**

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

<b>Physical state</b>	: 10X AccuScript RT Buffer	Liquid.
	100 mM DTT	Liquid.
	AccuScript High Fidelity RT	Liquid.
<b>Colour</b>	: 10X AccuScript RT Buffer	Not available.
	100 mM DTT	Not available.
	AccuScript High Fidelity RT	Not available.
<b>Odour</b>	: 10X AccuScript RT Buffer	Not available.
	100 mM DTT	Not available.
	AccuScript High Fidelity RT	Not available.
<b>Odour threshold</b>	: 10X AccuScript RT Buffer	Not available.
	100 mM DTT	Not available.
	AccuScript High Fidelity RT	Not available.
<b>pH</b>	: 10X AccuScript RT Buffer	8.3
	100 mM DTT	Not available.
	AccuScript High Fidelity RT	8

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**SECTION 9: Physical and chemical properties**

<b>Melting point/freezing point</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  0°C Not available.
<b>Initial boiling point and boiling range</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  100°C Not available.
<b>Flash point</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  Not available. Not available.
<b>Evaporation rate</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  Not available. Not available.
<b>Flammability (solid, gas)</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not applicable.  Not applicable. Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  Not available. Not available.
<b>Vapour pressure</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  Not available. Not available.
<b>Vapour density</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  Not available. Not available.
<b>Relative density</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  Not available. Not available.
<b>Solubility(ies)</b>	: 10X AccuScript RT Buffer 100 mM DTT  AccuScript High Fidelity RT	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.  Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available.  Not available. Not available.

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**SECTION 9: Physical and chemical properties**

<b>Auto-ignition temperature</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available. Not available. Not available.
<b>Decomposition temperature</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available. Not available. Not available.
<b>Viscosity</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available. Not available. Not available.
<b>Explosive properties</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available. Not available. Not available.
<b>Oxidising properties</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Not available. Not available. Not available.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: 10X AccuScript RT Buffer 100 mM DTT  AccuScript High Fidelity RT	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	The product is stable. The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: 10X AccuScript RT Buffer 100 mM DTT  AccuScript High Fidelity RT	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.

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**SECTION 10: Stability and reactivity**

**10.5 Incompatible materials** : 10X AccuScript RT Buffer May react or be incompatible with oxidising materials.  
 100 mM DTT May react or be incompatible with oxidising materials.  
 AccuScript High Fidelity RT May react or be incompatible with oxidising materials.

**10.6 Hazardous decomposition products** : 10X AccuScript RT Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
 Buffer Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
 100 mM DTT Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
 AccuScript High Fidelity RT Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

Acute toxicity

Not available.

Acute toxicity estimates

Route	ATE value
100 mM DTT Oral	33333.3 mg/kg

Irritation/Corrosion

**Conclusion/Summary** : Not available.

Sensitiser

**Conclusion/Summary** : Not available.

Mutagenicity

**Conclusion/Summary** : Not available.

Carcinogenicity

**Conclusion/Summary** : Not available.

Reproductive toxicity

**Conclusion/Summary** : Not available.

Teratogenicity

**Conclusion/Summary** : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
10X AccuScript RT Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation
100 mM DTT (R*,R*)-1,4-Dimercaptobutane-2,3-diol	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

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**SECTION 11: Toxicological information**

<b>Information on likely routes of exposure</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation.
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**Potential acute health effects**

<b>Inhalation</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Eye contact</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Inhalation</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.
<b>Ingestion</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.
<b>Skin contact</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.
<b>Eye contact</b>	: 10X AccuScript RT Buffer 100 mM DTT AccuScript High Fidelity RT	No specific data. No specific data. No specific data.

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

**Short term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

**Long term exposure**

<b>Potential immediate effects</b>	: Not available.
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## SECTION 11: Toxicological information

**Potential delayed effects** : Not available.

### Potential chronic health effects

<b>General</b>	: 10X AccuScript RT Buffer	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
	AccuScript High Fidelity RT	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: 10X AccuScript RT Buffer	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
	AccuScript High Fidelity RT	No known significant effects or critical hazards.
<b>Mutagenicity</b>	: 10X AccuScript RT Buffer	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
	AccuScript High Fidelity RT	No known significant effects or critical hazards.
<b>Teratogenicity</b>	: 10X AccuScript RT Buffer	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
	AccuScript High Fidelity RT	No known significant effects or critical hazards.
<b>Developmental effects</b>	: 10X AccuScript RT Buffer	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
	AccuScript High Fidelity RT	No known significant effects or critical hazards.
<b>Fertility effects</b>	: 10X AccuScript RT Buffer	No known significant effects or critical hazards.
	100 mM DTT	No known significant effects or critical hazards.
	AccuScript High Fidelity RT	No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
100 mM DTT (R*,R*)-1, 4-Dimercaptobutane-2,3-diol	Acute LC50 27000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

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## SECTION 12: Ecological information

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

**ADR/RID / IMDG / IATA** : Not regulated.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : 10X AccuScript RT Buffer Not applicable.  
100 mM DTT Not applicable.  
AccuScript High Fidelity RT Not applicable.

#### Other EU regulations

##### Ozone depleting substances (1005/2009/EU)

Not listed.



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## SECTION 15: Regulatory information

### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

### Seveso Directive

This product is not controlled under the Seveso Directive.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: All components are listed or exempted.
<b>China</b>	: All components are listed or exempted.
<b>Europe</b>	: All components are listed or exempted.
<b>Japan</b>	: <b>Japan inventory (ENCS):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are listed or exempted.
<b>Viet Nam</b>	: Not determined.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

<b>Abbreviations and acronyms</b>	: ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
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### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

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## SECTION 16: Other information

### [Full text of abbreviated H statements](#)

<b>10X AccuScript RT Buffer</b> H315 H319 H335	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
<b>100 mM DTT</b> H302 H315 H319 H335 H412	Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Harmful to aquatic life with long lasting effects.

### [Full text of classifications \[CLP/GHS\]](#)

<b>10X AccuScript RT Buffer</b> Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
<b>100 mM DTT</b> Acute Tox. 4, H302 Aquatic Chronic 3, H412 Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335	ACUTE TOXICITY (oral) - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

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**Version** : 2

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