



# SAFETY DATA SHEET

New Zealand

## Section 1. Identification

### Product name

**Bulk 1st Strand Mix; part of 'First-Strand cDNA Synthesis Kit, 55 reactions'**

### Catalogue Number

27-9261-01



9 0 2 7 9 2 6 1 0 1

### Component Number

279261A

### Other means of identification

Not available.

### Product type

Liquid.

### Identified uses

Use in laboratories

### Supplier

Cytiva  
Amersham Place  
Little Chalfont  
Buckinghamshire  
HP7 9NA United Kingdom  
+44 1494 508000

Cytiva New Zealand  
Buddle Findlay, Level 18, Pricewaterhousecooper Tower,  
188 Quay Street,  
Auckland, Auckland, 1010  
New Zealand

### Person who prepared the SDS :

sds\_author@cytiva.com

### Emergency telephone number (with hours of operation)

0800 733 893  
(10am - 7pm)

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## Section 2. Hazards identification

### HSNO Classification

6.3 - SKIN IRRITATION - Category B  
9.3 - TERRESTRIAL VERTEBRATE ECOTOXICITY - Category C

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 22.5%

This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

### GHS label elements

#### Signal word

Warning

#### Hazard statements

Causes mild skin irritation.  
Harmful to terrestrial vertebrates.

### Precautionary statements

#### General

Do not apply directly into or onto water. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

#### Prevention

Avoid release to the environment.

#### Response

If skin irritation occurs: Get medical advice/attention.

#### Storage

Not applicable.

#### Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Other hazards which do not result in classification

None known.



### Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	Mixture		
<b>Other means of identification</b>	Not available.		
<b>Ingredient name</b>		<b>% (w/w)</b>	<b>Identifiers</b>
Potassium chloride		1 - 5	CAS: 7447-40-7 EC: 231-211-8
Tromethamine		1 - 5	CAS: 77-86-1 EC: 201-064-4
Octoxynol	<0.1		CAS: 9002-93-1

**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.**

**Occupational exposure limits, if available, are listed in Section 8.**

### Section 4. First aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.
<b>Ingestion</b>	Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Skin contact</b>	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

#### Most important symptoms/effects, acute and delayed

##### Potential acute health effects

<b>Inhalation</b>	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Ingestion</b>	Irritating to mouth, throat and stomach.
<b>Skin contact</b>	Causes mild skin irritation.
<b>Eye contact</b>	Causes eye irritation.

##### Over-exposure signs/symptoms

<b>Inhalation</b>	No specific data.
<b>Ingestion</b>	No specific data.
<b>Skin</b>	Adverse symptoms may include the following: irritation redness
<b>Eyes</b>	Adverse symptoms may include the following: pain or irritation watering redness

#### Indication of immediate medical attention and special treatment needed, if necessary

<b>Specific treatments</b>	Not available.
<b>Notes to physician</b>	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.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### See toxicological information (Section 11)



## Section 5. Firefighting measures

### Extinguishing media

<b>Suitable</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Not suitable</b>	None known.
<b>Specific hazards arising from the chemical</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
<b>Hazchem code</b>	Not available.
<b>Special precautions for fire-fighters</b>	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>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	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>	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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
<b>Environmental precautions</b>	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).

### Methods and material for containment and cleaning up

<b>Small spill</b>	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.
<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
<b>Advice on general occupational hygiene</b>	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.
<b>Conditions for safe storage, including any incompatibilities</b>	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.



## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

#### Biological exposure indices

No exposure indices known.

#### Appropriate engineering controls

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

#### 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.

### Individual protection measures

#### 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: chemical splash goggles.

#### 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### 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

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.

##### Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

<b>Physical state</b>	Liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Boiling point or initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	[Product does not sustain combustion.]
<b>Burning time</b>	Not applicable.
<b>Burning rate</b>	Not applicable.
<b>Evaporation rate</b>	Not available.
<b>Flammability</b>	Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidising materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.
<b>Lower and upper explosive (flammable) limits</b>	Not available.
<b>Vapour pressure</b>	Not available.

#### Vapour Pressure at 20°C

Ingredient name	mm Hg	kPa	Method
water	17.5	2.3	

#### Vapour pressure at 50°C

mm Hg	kPa	Method
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<b>Relative vapour density</b>	Not available.	
<b>Relative density</b>	Not available.	
<b>Solubility(ies)</b>		
Media		<b>Result</b>
cold water		Easily soluble
hot water		Easily soluble
<b>Solubility in water</b>	Not available.	
<b>Miscible with water</b>	Yes.	
<b>Partition coefficient: n-octanol/water</b>	Not available.	
<b>Auto-ignition temperature</b>	Not available.	
<b>Decomposition temperature</b>	Not available.	
<b>SADT</b>	Not available.	
<b>Viscosity</b>	Not available.	
<b>Flow time (ISO 2431)</b>	Not available.	
<b>Particle characteristics</b>		
<b>Median particle size</b>	Not applicable.	

## Section 10. Stability and reactivity

<b>Reactivity</b>	No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	The product is stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	No specific data.
<b>Incompatible materials</b>	No specific data.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Ingestion</b>	Irritating to mouth, throat and stomach.
<b>Skin contact</b>	Causes mild skin irritation.
<b>Eye contact</b>	Causes eye irritation.

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

<b>Inhalation</b>	No specific data.
<b>Ingestion</b>	No specific data.
<b>Skin contact</b>	Adverse symptoms may include the following: irritation redness
<b>Eye contact</b>	Adverse symptoms may include the following: pain or irritation watering redness

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

#### Acute toxicity

<b>Product/ingredient name</b>	<b>Result</b>
Potassium chloride	<b>Rat - Male - Oral - LD50</b> 2600 mg/kg <u>Toxic effects:</u> Gastrointestinal - Hypermotility, diarrhea Gastrointestinal - Nausea or vomiting
Octoxynol	<b>Rabbit - Dermal - LD50</b> 8000 mg/kg <b>Rat - Oral - LD50</b> 1800 mg/kg

**Conclusion/Summary[Product]** Not available.

### Skin corrosion/irritation

Not available.



**Conclusion/Summary[Product]** Not available.

**Serious eye damage/eye irritation**

Not available.

**Conclusion/Summary[Product]** Not available.

**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary[Product]** Not available.

**Respiratory or skin sensitization**

Not available.

**Skin**

**Conclusion/Summary[Product]** Not available.

**Respiratory**

**Conclusion/Summary[Product]** Not available.

**Potential chronic health effects**

<b>General</b>	No known significant effects or critical hazards.
<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	No known significant effects or critical hazards.
<b>Mutagenicity</b>	No known significant effects or critical hazards.
<b>Developmental effects</b>	No known significant effects or critical hazards.
<b>Fertility effects</b>	No known significant effects or critical hazards.

**Chronic toxicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Reproductive toxicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Specific target organ toxicity (single exposure)**

**Product/ingredient name**

Tromethamine

**Result**

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE  
(Respiratory tract irritation) - Category 3



**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Numerical measures of toxicity****Acute toxicity estimates**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Potassium chloride	2600	N/A	N/A	N/A	N/A
Octoxynol	1800	8000	N/A	N/A	N/A

**Section 12. Ecological information**

**Ecotoxicity** No known significant effects or critical hazards.

**Aquatic and terrestrial toxicity****Product/ingredient name**

Potassium chloride

**Result****Acute - LC50 - Fresh water**

Crustaceans - Water flea - *Pseudosida ramosa* - Neonate

Age: ≤24 hours

9.68 mg/l [48 hours]

Effect: Mortality

**Acute - EC50 - Fresh water**

ISO

Algae - Green algae - *Desmodesmus subspicatus*

9.24 g/l [72 hours]

Effect: Population

**Acute - LC50 - Fresh water**

Fish - Zebra danio - *Danio rerio*

509.65 mg/l [96 hours]

Effect: Mortality

**Acute - LC50 - Fresh water**

Fish - Fathead minnow - *Pimephales promelas*

Age: 2 to 3 months; Size: 16 mm; Weight: 0.039 g

4500 µg/l [96 hours]

Effect: Mortality

**Acute - LC50 - Fresh water**

Crustaceans - Water flea - *Ceriodaphnia rigaudi* - Neonate

Age: 24 hours

5.85 mg/l [48 hours]

Effect: Mortality

**Chronic - NOEC - Fresh water**

OECD

Fish - Eastern mosquitofish - *Gambusia holbrooki*

Weight: 0.14 g

0.004 mg/l [28 days]

Effect: Enzymes

Octoxynol

**Conclusion/Summary[Product]** Not available.

**Persistence/degradability**

Not available.

**Conclusion/Summary[Product]** Not available.

**Product/ingredient name**

Tromethamine

**Aquatic half-life**

-

**Photolysis**

-

**Biodegradability**

Readily

**Bioaccumulative potential****Product/ingredient name**

glycerol

**LogP<sub>ow</sub>**

-1.76

**BCF**

-

**Potential**

Low

**Mobility in soil**

**Soil/water partition coefficient** Not available.

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



## Section 13. Disposal considerations

<b>Disposal methods</b>	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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
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## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*
New Zealand Class	Not regulated.	-	-	-
IATA Class	Not regulated.	-	-	-
IMDG Class	Not regulated.	-	-	-

No.

No.

No.

PG\* : Packing group

<b>Special precautions for user</b>	<b>Transport within user's premises:</b> 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.
<b>Transport in bulk according to IMO instruments</b>	Not available.

## Section 15. Regulatory information

<b>HSNO Approval Number</b>	HSR002596
<b>HSNO Group Standard</b>	Not available.
<b>HSNO Classification</b>	6.3 - SKIN IRRITATION - Category B 9.3 - TERRESTRIAL VERTEBRATE ECOTOXICITY - Category C

### International regulations

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

Not listed.

#### Montreal Protocol

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>New Zealand</b>	Not determined.
<b>Australia</b>	Not determined.
<b>United States</b>	Not determined.
<b>Canada inventory</b>	Not determined.
<b>China</b>	Not determined.
<b>Japan</b>	Not determined.



## Section 16. Other information

### History

<b>Date of printing</b>	19 February 2026
<b>Date of issue/ Date of revision</b>	19 February 2026
<b>Date of previous issue</b>	10/10/2019
<b>Version</b>	8.01
<b>Key to abbreviations</b>	ADG = Australian Dangerous Goods ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations
<b>References</b>	Not available.

 Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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