

SAFETY DATA SHEET

New Zealand

Section 1. Identification

Product name

RTG GenomiPhi V3 Denaturation Buffer; part of, 'illustra™ Ready-To-Go™ GenomiPhi™ V3 DNA Amplification Kit, 96 reactions'

Catalogue Number

25-6601-96



Component Number

256601BUF

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 0800 515 313

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

Person who prepared the MSDS :

sds_author@cytiva.com

Emergency telephone number (with hours of operation)

0800 733 893
(10am - 7pm)

Section 2. Hazards identification

HSNO Classification

Not classified.

This material is not classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

GHS label elements

Signal word

No signal word.

Hazard statements

No known significant effects or critical hazards.

Precautionary statements

Prevention

Not applicable.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

Other hazards which do not result in classification

None known.



Section 3. Composition/information on ingredients

| | |
|-------------------------------------|-----------------|
| Substance/mixture | Mixture |
| Other means of identification | Not available. |
| CAS number/other identifiers | |
| CAS number | Not applicable. |
| EC number | Mixture. |
| Product code | 25-6601-96 |

| Ingredient name | % | CAS number |
|--------------------|--------|------------|
| potassium chloride | 1.2176 | 7447-40-7 |

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

| | |
|--------------|---|
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| Ingestion | 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. |
| Skin contact | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| Eye contact | 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. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

| | |
|--------------|---|
| Inhalation | No known significant effects or critical hazards. |
| Ingestion | No known significant effects or critical hazards. |
| Skin contact | No known significant effects or critical hazards. |
| Eye contact | No known significant effects or critical hazards. |

Over-exposure signs/symptoms

| | |
|------------|-------------------|
| Inhalation | No specific data. |
| Ingestion | No specific data. |
| Skin | No specific data. |
| Eyes | No specific data. |

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

| | |
|----------------------------|--|
| Specific treatments | Not available. |
| Notes to physician | No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable training. |

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

| | |
|--------------|---|
| Suitable | Use an extinguishing agent suitable for the surrounding fire. |
| Not suitable | None known. |

Specific hazards arising from the chemical In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products Decomposition products may include the following materials:
halogenated compounds
metal oxide/oxides

Hazchem code Not available.

Special precautions for fire-fighters 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.



Special protective equipment for fire-fighters 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 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 (see Section 8).

Environmental precautions 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

Small spill 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.

Large spill Stop leak if without risk. Move containers from spill area. 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling 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.

Conditions for safe storage, including any incompatibilities Store between the following temperatures: 18 to 25°C (64.4 to 77°F). 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.

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.

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.

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.

Eye 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 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.



Section 9. Physical and chemical properties

Appearance

| | |
|---|--|
| Physical state | Liquid. |
| Colour | Colourless. |
| Odour | Odourless. |
| Odour threshold | Not available. |
| pH | Not available. |
| Melting point | Not available. |
| Boiling point | Not available. |
| Flash point | [Product does not sustain combustion.] |
| Burning rate | Not applicable. |
| Burning time | Not applicable. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Lower and upper explosive (flammable) limits | Not available. |
| Vapour pressure | Not available. |
| Vapour density | Not available. |
| Relative density | Not available. |
| Solubility | Not available. |
| Solubility in water | Not available. |
| Partition coefficient: n-octanol/ water | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| SADT | Not available. |
| Viscosity | Not available. |
| Flow time (ISO 2431) | Not available. |

Aerosol product

| | |
|---|-----------------|
| Type of aerosol | Not applicable. |
| Heat of combustion | Not available. |
| Ignition distance | Not applicable. |
| Enclosed space ignition - Time equivalent | Not applicable. |
| Enclosed space ignition - Deflagration density | Not applicable. |
| Flame height | Not applicable. |
| Flame duration | Not applicable. |

Section 10. Stability and reactivity

| | |
|---|--|
| Chemical stability | The product is stable. |
| Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | No specific data. |
| Incompatible materials | No specific data. |
| Hazardous decomposition products | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |



Section 11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|---|
| Inhalation | No known significant effects or critical hazards. |
| Ingestion | No known significant effects or critical hazards. |
| Skin contact | No known significant effects or critical hazards. |
| Eye contact | No known significant effects or critical hazards. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|---------------------|-------------------|
| Inhalation | No specific data. |
| Ingestion | No specific data. |
| Skin contact | No specific data. |
| Eye contact | No specific data. |

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

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------|------------|------------|----------|
| potassium chloride | LD50 Oral | Rat - Male | 2600 mg/kg | - |

Irritation/Corrosion

Not available.

Sensitisation

Not available.

Potential chronic health effects

| | |
|------------------------------|---|
| General | No known significant effects or critical hazards. |
| Inhalation | No known significant effects or critical hazards. |
| Ingestion | No known significant effects or critical hazards. |
| Skin contact | No known significant effects or critical hazards. |
| Eye contact | No known significant effects or critical hazards. |
| Carcinogenicity | No known significant effects or critical hazards. |
| Mutagenicity | No known significant effects or critical hazards. |
| Teratogenicity | No known significant effects or critical hazards. |
| Developmental effects | No known significant effects or critical hazards. |
| Fertility effects | No known significant effects or critical hazards. |

Chronic toxicity

Not available.

Carcinogenicity

Not available.

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

Specific target organ toxicity

Not available.

Aspiration hazard

Not available.

Numerical measures of toxicity



Acute toxicity estimates

| Route | ATE value |
|-------|----------------|
| Oral | 213543.1 mg/kg |

Section 12. Ecological information

Ecotoxicity No known significant effects or critical hazards.

Aquatic and terrestrial toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|-------------------------------------|---|----------|
| potassium chloride | Acute EC50 1337000 µg/l Fresh water | Algae - Navicula seminulum | 96 hours |
| | Acute EC50 9.24 g/L Fresh water | Algae - Desmodesmus subspicatus | 72 hours |
| | Acute EC50 149000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 9.68 mg/l Fresh water | Crustaceans - Pseudosida ramosa - Neonate | 48 hours |
| | Acute LC50 920 ppm Fresh water | Fish - Gambusia affinis - Adult | 96 hours |

Persistence/degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) Not available.

Other adverse effects No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods 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. 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

| Regulatory information | UN number | Proper shipping name | Classes | PG* |
|------------------------|----------------|----------------------|---------|-----|
| New Zealand Class | Not regulated. | - | - | - |
| | | No. | | |
| IATA Class | Not regulated. | - | - | - |
| | | - | | |
| | | No. | | |
| IMDG Class | Not regulated. | - | - | - |
| | | No. | | |

PG* : Packing group

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.

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

Section 15. Regulatory information

HSNO Approval Number HSR002596
HSNO Group Standard Laboratory Chemicals and Reagent Kits
HSNO Classification Not classified.

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

| | |
|-------------------------|--|
| New Zealand | Not determined. |
| Australia | Not determined. |
| Europe | Not determined. |
| United States | All components are listed or exempted. |
| Canada inventory | Not determined. |
| China | Not determined. |
| Japan | Not determined. |
| Malaysia | Not determined. |

Section 16. Other information

History

| | |
|--|---|
| Date of printing | 30 April 2020 |
| Date of issue/ Date of revision | 27 September 2019 |
| Date of previous issue | 1/23/2017 |
| Version | 4 |
| Key to abbreviations | 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 |

References 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.

