Material Safety Data Sheet

United States English

Section 1. Chemical product and company identification

Product name Cy[™]5-dUTP; part of 'CyScribe[™] First-Strand cDNA

Labeling System - dUTP with CyScribe GFX

Purification Kit'

Catalogue Number RPN6201X

9 0 R P N 6 2 0 1 X

Material uses Industrial applications: Analytical chemistry. Research.

Product typeLiquid.Validation date15 April 2011Print date15 April 2011

Supplier GE Healthcare UK Ltd Amersham Place

Little Chalfont

Buckinghamshire HP7 9NA

England

+44 0870 606 1921

In case of emergency US ChemTrec (US) 1-800-424-9300

Canada ChemTrec (US) 1-703-527-3887

2. Hazards identification

Physical stateLiquid.OdorOdorless.

OSHA/HCS status While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR

1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Emergency overview

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED

INSTRUCTIONS FOR USE ARE FOLLOWED.

Potential acute health effects

EyesNo known significant effects or critical hazards.SkinNo known significant effects or critical hazards.InhalationNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

Potential chronic health effects

Chronic effects

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.

InhalationNo specific data.IngestionNo specific data.SkinNo specific data.EyesNo specific data.

Medical conditions aggravated by

over-exposure

See toxicological information (Section 11)

None known.



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3. Composition/information on ingredients

There are no 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.

Section 4. First aid measures

Eye contact If direct contact with the eyes occurs, flush thoroughly with running fresh water. Skin contact Wash with soap and water. Get medical attention if irritation develops.

Inhalation Get medical attention if symptoms appear.

Ingestion Do not ingest. If you feel unwell, seek medical advice (show the label when possible). Protection of first-aiders No action shall be taken involving any personal risk or without suitable training.

Section 5. Fire-fighting measures

In a fire or if heated, a pressure increase will occur and the container may burst. Flammability of the product

Extinguishing media

Suitable Use an extinguishing agent suitable for the surrounding fire.

Not suitable None known.

Special exposure hazards 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 $\overline{\mathsf{N}}$ o 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 spilled

material. Put on appropriate personal protective equipment (see Section 8).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform **Environmental precautions**

the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, Methods for cleaning up 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.

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Small spill

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.

Section 7. Handling and storage

Fut on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be Handling 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.

Store between the following temperatures: -30 to -15°C (-22 to 5°F). Store in accordance with local Storage 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 unlabeled containers. Use appropriate containment to avoid

environmental contamination.

Section 8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

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.

Engineering measures

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.

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.

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Personal protection

Respiratory 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.

HandsChemical-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.

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 or dusts.

Skin 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.

Environmental exposure

controls

Eyes

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

Physical stateLiquid.ColorBlue.OdorOdorless.

pH 7 [Conc. (% w/w): 100%]

 Boiling/condensation point
 100°C (212°F)

 Melting/freezing point
 0°C (32°F)

 Volatility
 0% (v/v), 0% (w/w)

 VOC

 ∇% (w/w) [ISO 11890-1]

Solubility Easily soluble in the following materials: cold water and hot water.

Section 10. Stability and reactivity

Stability The product is stable.

Possibility of hazardous reactions Index normal conditions of storage and use, hazardous reactions will not occur.

Conditions of reactivityNon-flammable in the presence of the following materials or conditions: open flames, sparks and static

discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.

Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible

materials, organic materials, metals, acids, alkalis and moisture.

Section 11. Toxicological information

Sensitizer

Conclusion/Summary Not available.

Section 12. Ecological information

Environmental effects No known significant effects or critical hazards.

Aquatic ecotoxicity

Conclusion/Summary Not available.

Biodegradability

Conclusion/Summary Not available.

Other adverse effectsNo known significant effects or critical hazards.

Section 13. Disposal considerations

Waste disposal The generation of waste should be avoided or minimized wherever possible. Significant quantities of

waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. 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 spilled material and runoff and contact with soil,

waterways, drains and sewers

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.



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Section 14. Transport information

International transport regulations

Not classified.

Section 15. Regulatory information

HCS Classification Not regulated.

TSCA 8(a) IUR Exempt/Partial exemption: Not determined U.S. Federal regulations

United States inventory (TSCA 8b): Not determined.

SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: disodium hydrogenorthophosphate

Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) Not listed

Clean Air Act Section 602 Class I

Substances

Not listed

Clean Air Act Section 602 Class II Not listed

Substances

DEA List I Chemicals (Precursor

Chemicals)

Not listed

DEA List II Chemicals (Essential

Chemicals)

Not listed

State regulations

Mone of the components are listed. Massachusetts Mone of the components are listed. **New York** Mone of the components are listed. **New Jersey** Mone of the components are listed. Pennsylvania

California Prop. 65

Not determined. **United States inventory (TSCA 8b)**

International regulations

International lists Australia inventory (AICS): Not determined.

China inventory (IECSC): Not determined. Japan inventory: Not determined. Korea inventory: Not determined.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): Not determined.

Chemical Weapons Convention List Schedule I Chemicals

Not listed

Chemical Weapons Convention

List Schedule II Chemicals

Not listed

Chemical Weapons Convention

List Schedule III Chemicals

Not listed





Section 16. Other information

Label requirements

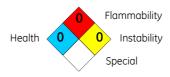
NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED

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INSTRUCTIONS FOR USE ARE FOLLOWED.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)





Indicates information that has changed from previously issued version.

History

Date of printing15 April 2011Date of previous issue09 February 2009

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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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