Material Safety Data Sheet

Canada English

Section 1. Chemical product and company identification

Product name dCTP, 150 µl; part of 'Nick Translation Kit, dNTP, 20

reactions

Catalogue Number N5500

Component Number NIF225L

Industrial applications: Analytical chemistry. Research. Material uses

Product type Liquid. 14 June 2011 Validation date 14 June 2011 Print date

GE Healthcare UK Ltd Supplier Amersham Place

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England

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

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

2. Hazards identification

Liquid. Physical state Odorless. Odor

No specific hazard. **Emergency overview**

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED

INSTRUCTIONS FOR USE ARE FOLLOWED.

Precautionary measures

Dermal contact. Eye contact. Inhalation. Ingestion. Routes of entry

Potential acute health effects

No known significant effects or critical hazards. Eyes No known significant effects or critical hazards. Skin Inhalation No known significant effects or critical hazards. No known significant effects or critical hazards. Ingestion

Potential chronic health effects

Chronic effects No known significant effects or critical hazards. 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** Fertility effects No known significant effects or critical hazards.

Target organs Not available. Inhalation No specific data. Ingestion No specific data. Skin No specific data. No specific data. Medical conditions aggravated by

None known

over-exposure



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See toxicological information (Section 11)

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 Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15

minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing

contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get

medical attention if symptoms occur.

Inhalation Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs,

provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt

or waistband. Get medical attention if symptoms occur.

Ingestion Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never

give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Protection of first-aidersNo action shall be taken involving any personal risk or without suitable training.

Section 5. Fire-fighting measures

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

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 precautionsNo 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).

Environmental precautions Avoid dispersal of spilled 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 for cleaning up

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.

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.

Section 7. Handling and storage

Handling Fut 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.

Storage Storage Store between the following temperatures: -30 to -15°C (-22 to 5°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 unlabeled containers. Use appropriate containment to avoid

environmental contamination.



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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.

Personal protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk Respiratory

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.

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.

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.

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

Hands

Eves

Skin

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 state

Flash point Product does not sustain combustion.

Colorless Color Odorless Odor

7.8 [Conc. (% w/w): 100%] рΗ

0% (v/v) Volatility

₹% (w/w) [ISO 11890-1] VOC

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

Section 10. Stability and reactivity

Stability The product is stable. Materials to avoid No specific data.

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

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

discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible

materials, organic materials, metals, acids, alkalis and moisture. Not considered to be a product presenting a risk of explosion.

Section 11. Toxicological information

Acute toxicity

Product/ingredient name Result Species Dose Exposure

Not available

Not available. Conclusion/Summary

Classification

ACGIH IARC EPA NIOSH **OSHA** Product/ingredient name NTP

Not available.

Not available Synergistic products



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Section 12. Ecological information

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

Partition coefficient: n-

octanol/water

Not available.

Bioconcentration factor

Not available.

Other adverse effects

No 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.

Not available.

RCRA classification

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.

Section 14. Transport information

International transport regulations

Not classified

Section 15. Regulatory information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Not controlled under WHMIS (Canada).

CEPA Toxic substances: None of the components are listed. Canadian lists

Canadian ARET: None of the components are listed. Canadian NPRI: None of the components are listed.

Alberta Designated Substances: None of the components are listed. Ontario Designated Substances: None of the components are listed. Quebec Designated Substances: None of the components are listed.

All components are listed or exempted. Canada inventory

International regulations

Australia inventory (AICS): All components are listed or exempted. International lists

China inventory (IECSC): All components are listed or exempted. Japan inventory: All components are listed or exempted. Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

Chemical Weapons Convention List Schedule I Chemicals

Not listed

Chemical Weapons Convention

Not listed

List Schedule II Chemicals

Not listed

Chemical Weapons Convention List Schedule III Chemicals



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Section 16. Other information

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



Indicates information that has changed from previously issued version.

<u>History</u>

Date of printing14 June 2011Date of previous issue11 February 2009

Date of issue 14 June 2011 Version 4

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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25005170-5