Material Safety Data Sheet

United States English

Section 1. Chemical product and company identification

phiX-174 RF DNA-*Hae* III Digest, 100 µg **Product name**

Catalogue Number 27-4044-02

Material uses Industrial applications: Analytical chemistry. Research.

Product type

Validation date 17 February 2012 17 February 2012 Print date Supplier GE Healthcare UK Ltd Amersham Place Little Chalfont

Buckinghamshire HP7 9NA England

+44 0870 606 1921

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

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

2. Hazards identification

Physical state Odor

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

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

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

Potential chronic health effects

No known significant effects or critical hazards. Chronic effects Carcinogenicity No known significant effects or critical hazards. 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

Over-exposure signs/symptoms

No specific data. Inhalation No specific data. Ingestion No specific data. Skin No specific data. Eyes None known. Medical conditions aggravated by

over-exposure

See toxicological information (Section 11)



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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

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

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.

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

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.

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

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

Protection of first-aiders

No action shall be taken involving any personal risk or without suitable training.

Notes to physician No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Section 5. Fire-fighting measures

Flammability of the product No specific fire or explosion hazard.

Extinguishing media

Suitable Use an extinguishing agent suitable for the surrounding fire.

Not suitable

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No Special exposure hazards

action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products

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

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding Personal precautions

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). Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas.

Methods for cleaning up Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed

waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste

container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

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.

Store in accordance with local regulations. Store in original container protected from direct sunlight in a Storage

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.]

White Color Odorless Odor 0% (w/w) Volatility

0 % (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. Conditions to avoid No specific data. No specific data. Materials to avoid

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

Non-flammable in the presence of the following materials or conditions: shocks and mechanical impacts, Conditions of reactivity

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

Not available. Conclusion/Summary

Section 12. Ecological information

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

Aquatic ecotoxicity

Conclusion/Summary Not available

Biodegradability

Conclusion/Summary Not available



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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.

RCRA classification Not classified

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

HCS Classification Not regulated.

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

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 Air Act Section 112(b)

Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I Not listed

Substances

near

Clean Air Act Section 602 Class II Not listed

Substances

DEA List I Chemicals (Precursor No

Chemicals)

Not listed

Not listed

DEA List II Chemicals (Essential

Chemicals)

Not listed

State regulations

MassachusettsThis material is not listed.New YorkThis material is not listed.New JerseyThis material is not listed.PennsylvaniaThis material is not listed.

California Prop. 65

United States inventory (TSCA 8b) Not determined.

International regulations



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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

Not listed

List Schedule III Chemicals

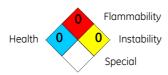
Section 16. Other information

Label requirements NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED

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.

<u>History</u>

Date of printing17 February 2012Date of previous issue17 February 2012

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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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