Material Safety Data Sheet

United States English

Section 1. Chemical product and company identification

Product name CyTM7 NHS ester, 1 mg

Catalogue Number PA17101

Material uses Industrial applications: Analytical chemistry. Research.

Product type
Validation date
30 June 2009
Print date
30 June 2009

Supplier GE Healthcare UK Ltd

Amersham Place Little Chalfont

Buckinghamshire HP7 9NA England +44 0870 606 1921

<u>In case of emergency</u> US ChemTrec (US) 1-800-424-9300

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

2. Hazards identification

Physical stateSolid.OdorOdorless.

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview WARNING!

MARMFUL IF INHALED. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH

SKIN OR IF SWALLOWED.

Marmful by inhalation. May be harmful if absorbed through skin or if swallowed. May cause sensitization by skin contact. Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

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

Potential acute health effects

Eyes No known significant effects or critical hazards.

Skin Harmful in contact with skin. May cause sensitization by skin contact.

InhalationToxic by inhalation.IngestionHarmful if swallowed.

Potential chronic health effects

Chronic effects Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

InhalationNo specific data.IngestionNo specific data.

Skin Adverse symptoms may include the following:

irritation redness

Eyes No specific data.

Medical conditions aggravated by

over-exposure

Fre-existing skin disorders may be aggravated by over-exposure to this product.

See toxicological information (section 11)



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Composition/information on ingredients

Name CAS number % by weight

₹y7 (NHS ester)

Section 4. First aid measures

3.

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 immediately.

r case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing Skin contact contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get

medical attention immediately.

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 immediately.

 $\overline{\mathbb{W}}$ ash 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 immediately.

 $\overline{\mathsf{N}}$ o action shall be taken involving any personal risk or without suitable training. If it is suspected that Protection of first-aiders fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash

contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 5. Fire fighting measures

Flammability of the product No specific fire or explosion hazard

Extinguishing media

Use an extinguishing agent suitable for the surrounding fire. Suitable

None known Not suitable

romptly 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.

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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions

Kvoid 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).

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, Methods for cleaning up

basements or confined areas. 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.

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

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 prohibited in areas where this material is handled, stored and processed. Workers should wash hands Handling

and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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

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

Hygiene measures

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. 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

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. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times

Hands

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

risks involved and should be approved by a specialist before handling this product.

Eves Skin

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

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.

Section 9. Physical and chemical properties

Solid Physical state Color Purple Odorless Molecular weight 818.0 Volatility 0% (w/w) 0 (g/l). VOC

Soluble in the following materials: cold water and hot water. Solubility

Section 10. Stability and reactivity

Stability

The product is stable.

Hazardous polymerization

Inder normal conditions of storage and use, hazardous polymerization will not occur.

Conditions of reactivity

Non-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.

Not considered to be a product presenting a risk of explosion.

Section 11. Toxicological information

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 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. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way 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. 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 Toxic material

Sensitizing material

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: No products were found.

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

State regulations

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.

Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.

Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.

Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: None of the components are listed.
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: None of the components are listed.

New Jersey Spill: None of the components are listed.

New Jersey Toxic Catastrophe Prevention Act: None of the components are listed. New York Acutely Hazardous Substances: None of the components are listed. New York Toxic Chemical Release Reporting: None of the components are listed. Pennsylvania RTK Hazardous Substances: None of the components are listed. Rhode Island Hazardous Substances: None of the components are listed.

United States inventory (TSCA 8b)

Not determined.

EU regulations

Hazard symbol or symbols



Risk phrases R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.

R42/43- May cause sensitization by inhalation and skin contact.

Safety phrases S22- Do not breathe dust.

S36/37- Wear suitable protective clothing and gloves.

S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

International regulations

International lists

Australia inventory (AICS): Not determined. China inventory (IECSC): Not determined. Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined. Korea inventory (KECI): Not determined.

New Zealand Inventory of Chemicals (NZIoC): Not determined

Philippines inventory (PICCS): Not determined.



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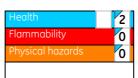
Cy[™]7 NHS ester, 1 mg PA17101

Section 16. Other information

Label requirements

MARMFUL IF INHALED. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.

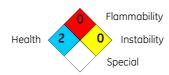
Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

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.

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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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