Material Safety Data Sheet

United States English

Section 1. Chemical product and company identification

Product name CytoCy™5S, 5 mg

Catalogue Number 28990177

Material uses Industrial applications: Analytical chemistry. Research.

Product type

Validation date 15 February 2011 23 March 2011 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

Hazards identification 2.

Physical state Odor

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

WARNING **Emergency overview**

HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. MAY CAUSE ALLERGIC RESPIRATORY

AND SKIN REACTION.

Harmful by inhalation, in contact with skin and if swallowed. May cause sensitization by inhalation and 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.

Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Routes of entry

No known significant effects or critical hazards. Eves

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

Toxic by inhalation. May cause sensitization by inhalation. Exposure to decomposition products may Inhalation

cause a health hazard. Serious effects may be delayed following exposure.

Ingestion Toxic if swallowed.

Potential chronic health effects

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

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 Adverse symptoms may include the following: Inhalation

wheezing and breathing difficulties

asthma

Ingestion No specific data.

Adverse symptoms may include the following: Skin

irritation redness

Eyes

Medical conditions aggravated by

Pre-existing respiratory and skin disorders may be aggravated by over-exposure to this product.

over-exposure



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See toxicological information (Section 11)

3. Composition/information on ingredients

Name CAS number % by weight

CytoCy 5S 100

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 immediately.

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 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.

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 immediately.

Protection of first-aidersNo action shall be taken involving any personal risk or without suitable training. If it is suspected that

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

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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses,

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.

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. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease 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 not reuse container.

Storage Store between the following temperatures: 2 to 8°C (35.6 to 46.4°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 Hygiene measures

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering

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

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

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

Environmental exposure

controls

Hands

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 state

[Product does not sustain combustion.] Flash point

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

0 % (w/w) [ISO 11890-1] VOC

Solubility Easily soluble in the following materials: methanol.

Very slightly soluble in the following materials: cold water and hot water.

Section 10. Stability and reactivity

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

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

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

Section 12. Ecological information

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

Aquatic ecotoxicity

Conclusion/Summary Not available

Biodegradability

Not available. Conclusion/Summary

Other adverse effects No known significant effects or critical hazards.



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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. 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. 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.

Section 14. Transport information

International transport regulations

Not classified.

Section 15. Regulatory information

HCS Classification

Toxic material Sensitizing material

U.S. Federal regulations

TSCA 8(a) IUR Exempt/Partial exemption: Partial exemption

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 (CAA) 112 accidental release prevention: 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)

International regulations

Not determined.

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.



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Section 16. Other information

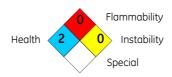
Label requirements

 ${\sf HARMFUL} \ {\sf IF} \ {\sf INHALED}, \\ {\sf ABSORBED} \ {\sf THROUGH} \ {\sf SKIN} \ {\sf OR} \ {\sf SWALLOWED}. \ \ {\sf MAY} \ {\sf CAUSE} \ {\sf ALLERGIC} \ {\sf RESPIRATORY}$

AND SKIN REACTION.

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 printing23 March 2011Date of previous issueNo previous validation

Date of issue 15 February 2011 **Version** 1

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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