

Material Safety Data Sheet

United States
English

Section 1. Chemical product and company identification

Product name **CNBr-activated Sepharose™ 4B, 15 g**

Catalogue Number **17-0430-01**



9 0 1 7 0 4 3 0 0 1

Synonym Cross-linked Agarose
Material uses Industrial applications: Analytical chemistry. Liquid chromatography. Research.
Product type Solid.
Validation date 29 June 2011
Print date 29 June 2011
Supplier GE Healthcare UK Ltd
Amersham Place
Little Chalfont
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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 state Solid. [Solid beads.]
Odor Odorless.
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.

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

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

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.
Inhalation	No specific data.
Ingestion	No specific data.
Skin	No specific data.
Eyes	No specific data.

Medical conditions aggravated by over-exposure None known.

See toxicological information (Section 11)



Article Number

17043001



9 5 1 7 0 4 3 0 0 1

Page: 1/5

Validation date 29 June 2011

Version 4.02

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

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 precautions	✓ No 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	✓ Move containers from spill area. 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.
Storage	✓ Store between the following temperatures: 4 to 8°C (39.2 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.

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	
Respiratory	☒ Respirator is not needed under normal and intended conditions of product use.
Hands	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.
Eyes	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	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	Solid. [Solid beads.]
Flash point	[Product does not sustain combustion.]
Color	White.
Odor	Odorless.
Vapor pressure	☒ kPa (0 mm Hg) [20°C]
Volatility	0% (w/w)
VOC	0 % (w/w) [ISO 11890-1]
Solubility	Insoluble in the following materials: cold water and hot water.

Section 10. Stability and reactivity

Stability	The product is stable.
Materials to avoid	No specific data.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions of reactivity	☒ Non-flammable in the presence of the following materials or conditions: 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

Sensitizer

Conclusion/Summary	Not available.
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Section 12. Ecological information

Environmental effects	No known significant effects or critical hazards.
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Aquatic ecotoxicity

Conclusion/Summary	Not available.
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Biodegradability

Conclusion/Summary	Not available.
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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. 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.

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Section 15. Regulatory information

HCS Classification	Not regulated.
U.S. Federal regulations	TSCA 8(a) IUR Exempt/Partial exemption: This material is listed or exempted. United States inventory (TSCA 8b): This material is listed or exempted. 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) Not listed

Clean Air Act Section 602 Class I
Substances Not listed

Clean Air Act Section 602 Class II
Substances Not listed

DEA List I Chemicals (Precursor
Chemicals) Not listed

DEA List II Chemicals (Essential
Chemicals) Not listed

State regulations

Massachusetts This material is not listed.

New York This material is not listed.

New Jersey This material is not listed.

Pennsylvania This material is not listed.

California Prop. 65

United States inventory (TSCA 8b) This material is listed or exempted.

International regulations

International lists

Australia inventory (AICS): This material is listed or exempted.

China inventory (IECSC): This material is listed or exempted.

Japan inventory: This material is listed or exempted.

Korea inventory: This material is listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.

Philippines inventory (PICCS): This material is listed or exempted.

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



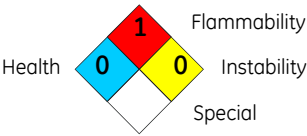
Section 16. Other information

Label requirements

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED 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 printing	29 June 2011	Date of previous issue	02 May 2011
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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.



Article Number

17043001



Page: 5/5

Validation date 29 June 2011

Version 4.02