GE Healthcare

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: 2'5' ADP Sepharose™ 4B, 5 g

Catalogue Number: 17-0700-01

EC number: 232-731-8
CAS number: 9012-36-6
Product description: Not available.
Product type: Solid.
Other means of identification: cross-linked Agarose

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Use in laboratories

1.3 Details of the supplier of the safety data sheet

Supplier: GE Healthcare UK Ltd
Amersham Place
Little Chalfont
Buckinghamshire HP7 9NA
England
+44 0870 606 1921

Person who prepared the MSDS: msdslifesciences@ge.com

Hours of operation: 08.30 - 17.00

1.4 Emergency telephone number

United Kingdom (UK): 0870 606 1921

National advisory body/Poison Centre

United Kingdom (UK): Health professionals should contact the National Poisons Information Service (NPIS) by telephone, or use TOXBASE www.toxbase.org.
NPIS http://www.npis.org/ advise that others seeking specific information on poisons should contact:
In England and Wales: NHS Direct - 0845 46467 or 111
In Scotland: NHS 24 - 08454 24 24 24
In N Ireland: Contact your local GP or pharmacist during normal hours; click here (www.gpoutofhours.hscni.net/) for GP services Out-of-Hours.
SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: UVCB

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms

No signal word.

Hazard statements

No known significant effects or critical hazards.

Precautionary statements

Prevention Not applicable.

Response Not applicable.

Storage Not applicable.

Disposal Not applicable.

Supplemental label elements Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings Not applicable.

Tactile warning of danger Not applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

No.

P: Not available. B: Not available. T: No.

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Not available.

Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

Substance/mixture: UVCB

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agarose</td>
<td>EC: 232-731-8 CAS: 9012-36-6</td>
<td>100</td>
<td>Not classified.</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

- Substance
- [A] Constituent
- [B] Impurity
- [C] Stabilising additive

Occupational exposure limits, if available, are listed in Section 8.
SECTION 4: First aid measures

4.1 Description of first aid measures

**Eye contact**
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation**
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**
Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

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

4.2 Most important symptoms and effects, both acute and delayed

**Potential acute health effects**

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over-exposure signs/symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
</tr>
<tr>
<td>Inhalation</td>
</tr>
<tr>
<td>Skin contact</td>
</tr>
<tr>
<td>Ingestion</td>
</tr>
</tbody>
</table>

4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician**
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**
No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsuitable extinguishing media</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Hazards from the substance or mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>No specific fire or explosion hazard.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous combustion products</th>
</tr>
</thead>
<tbody>
<tr>
<td>No specific data.</td>
</tr>
</tbody>
</table>

5.3 Advice for firefighters

**Special precautions for firefighters**
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
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 spilt material. Put on appropriate personal protective equipment.

For emergency responders
If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.

6.2 Environmental precautions
Avoid dispersal of spilt 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).

6.3 Methods and materials for containment and cleaning up

Small spill
Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

Large spill
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, labelled waste container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections
See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures
Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene
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. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations
Laboratory chemicals Liquid chromatography. Research and Development

Industrial sector specific solutions
Not available.

SECTION 8: Exposure controls/personal protection

The list of identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits
No exposure limit value known.

Recommended monitoring procedures
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. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs
No DELs available.

PNECs
No PECs available.

8.2 Exposure controls
**Appropriate engineering controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

**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.

**Eye/face protection**
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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection**
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.

**Body protection**
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.

**Other skin protection**
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**
Use a properly fitted, particulate filter 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.

**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.

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**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

- **Physical state**: Solid. [Solid beads.]
- **Colour**: White.
- **Odour**: Odourless.
- **Odour threshold**: Not available.
- **pH**: Not applicable.
- **Melting point/freezing point**: Not available.
- **Initial boiling point and boiling range**: Not available.
- **Flash point**: [Product does not sustain combustion.]
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not available.
- ** Burning time**: Not available.
- ** Burning rate**: Not available.
- **Upper/lower flammability or explosive limits**: Not available.
- **Vapour pressure**: 0 kPa [room temperature]
- **Vapour density**: Not available.
- **Relative density**: Not available.
- **Solubility(ies)**: Insoluble in the following materials: cold water and hot water.
- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Viscosity**: Not available.
- **Explosive properties**: Not available.
- **Oxidising properties**: Not available.

**9.2 Other information**

No additional information.
SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
The product is stable.

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

10.4 Conditions to avoid
No specific data.

10.5 Incompatible materials
No specific data.

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Conclusion/Summary Not available.

Irritation/Corrosion
Conclusion/Summary Not available.

Sensitisation
Conclusion/Summary Not available.

Mutagenicity
Conclusion/Summary Not available.

Carcinogenicity
Conclusion/Summary Not available.

Reproductive toxicity
Conclusion/Summary Not available.

Teratogenicity
Conclusion/Summary Not available.

Specific target organ toxicity [single exposure]
Not available.

Specific target organ toxicity [repeated exposure]
Not available.

Aspiration hazard
Not available.

Information on the likely routes of exposure
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects
- Inhalation No known significant effects or critical hazards.
- Ingestion No known significant effects or critical hazards.
- Skin contact No known significant effects or critical hazards.
- Eye contact No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics
- Inhalation No specific data.
- Ingestion No specific data.
- Skin contact No specific data.
- Eye contact No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure
Potential immediate effects Not available.

Potential delayed effects Not available.

Long term exposure
**Potential immediate effects**  
Not available.

**Potential delayed effects**  
Not available.

**Potential chronic health effects**  
Not available.

**Conclusion/Summary**  
Not available.

**General**  
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.

**Other information**  
Not available.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Conclusion/Summary**  
Not available.

#### 12.2 Persistence and degradability

**Conclusion/Summary**  
Not available.

#### 12.3 Bioaccumulative potential

Not available.

#### 12.4 Mobility in soil

**Soil/water partition coefficient (Koc)**  
Not available.

**Mobility**  
Not available.

#### 12.5 Results of PBT and vPvB assessment

**PBT**  
No.

- P: Not available.
- B: Not available.
- T: No.

**vPvB**  
Not available.

- vP: Not available.
- vB: Not available.

#### 12.6 Other adverse effects

No known significant effects or critical hazards.

### SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 13.1 Waste treatment methods

**Product**

The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste**

Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

**Packaging**

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Methods of disposal**

- 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 spilt material and runoff and contact with soil, waterways, drains and sewers.
### SECTION 14: Transport information

<table>
<thead>
<tr>
<th></th>
<th>ADR/RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14.2 UN proper shipping name</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>14.3 Transport hazard class(es)</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>14.4 Packing group</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>14.5 Environmental hazards</strong></td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td><strong>Additional information</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

14.6 Special precautions for use: **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

### SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU Regulation (EC) No. 1907/2006 (REACH)**

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

**Other EU regulations**

Europe inventory
This material is listed or exempted.

Black List Chemicals
Not listed

Priority List Chemicals
Not listed

Integrated pollution prevention and control list (IPPC) - Air
Not listed

Integrated pollution prevention and control list (IPPC) - Water
Not listed

**Seveso II Directive**

This product is not controlled under the Seveso II Directive.

**Chemical Weapons Convention**

List Schedule I Chemicals
Not listed

List Schedule II Chemicals
Not listed
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

2′,5′ ADP Sepharose™ 4B, 5 g

Chemical Weapons Convention List Schedule III Chemicals
Not listed

15.2 Chemical Safety Assessment
Not available.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
<td></td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements
Not applicable.

Full text of classifications [CLP/GHS]
Not applicable.

Date of printing 17 September 2015
Date of issue/ Date of revision 17 September 2015
Date of previous issue 29 June 2011
Version 5

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.