

# SAFETY DATA SHEET

New Zealand

## Section 1. Identification

Product name

**LSL 4010 Agarose, 500 g**

Catalogue Number

94010-1



Chemical name

Agarose

Other means of identification

Agarose gel beads; Sepharose; (2S,3R,4S,5R,6R)-2-[[[(1S,3S,4S,5S,8R)-3-[(2S,3R,4S,5S,6R)-2-[(1S,3R,4S,5S,8R)-3,4-dihydroxy-2,6-dioxabicyclo[3.2.1]octan-8-yl]oxy]-3,5-dihydroxy-6-(hydroxymethyl)oxan-4-yl]oxy-4-hydroxy-2,6-dioxabicyclo[3.2.1]octan-8-yl]oxy]-6-(hydroxymethyl)oxane-3,4,5-triol

Product type

Powder.

### Identified uses

For further manufacturing.  
Liquid chromatography.  
Manufacture of chemical products.  
Scientific research and development  
Consumer use

-

### Supplier

Cytiva  
Amersham Place  
Little Chalfont  
Buckinghamshire  
HP7 9NA United Kingdom  
+44 1494 508000

Cytiva New Zealand  
Buddle Findlay, Level 18, Pricewaterhousecooper Tower,  
188 Quay Street,  
Auckland, Auckland, 1010  
New Zealand

Person who prepared the SDS :

sds\_author@cytiva.com

Emergency telephone number (with hours of operation)

0800 733 893  
(10am - 7pm)

## Section 2. Hazards identification

HSNO Classification

Not classified.

This material is not classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

### GHS label elements

Signal word

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.

Other hazards which do not result in classification

May form explosible dust-air mixture if dispersed.



## Section 3. Composition/information on ingredients

Substance/mixture	Substance
Chemical name	Agarose
Other means of identification	Agarose gel beads; Sepharose; (2S,3R,4S,5R,6R)-2-[[[(1S,3S,4S,5S,8R)-3-[(2S,3R,4S,5S,6R)-2-[[[(1S,3R,4S,5S,8R)-3,4-dihydroxy-2,6-dioxabicyclo[3.2.1]octan-8-yl]oxy]-3,5-dihydroxy-6-(hydroxymethyl)oxan-4-yl]oxy-4-hydroxy-2,6-dioxabicyclo[3.2.1]octan-8-yl]oxy]-6-(hydroxymethyl)oxane-3,4,5-triol

Ingredient name	% (w/w)	Identifiers
Agarose	100	CAS: 9012-36-6 EC: 232-731-8

There are no additional 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.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

Inhalation	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Ingestion	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Eye contact	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

#### Over-exposure signs/symptoms

Inhalation	Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	No specific data.
Skin	No specific data.
Eyes	Adverse symptoms may include the following: irritation redness

### Indication of immediate medical attention and special treatment needed, if necessary

Specific treatments	Not available.
Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

Suitable	Use dry chemical powder.
Not suitable	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
Specific hazards arising from the chemical	May form explosible dust-air mixture if dispersed.
Hazardous thermal decomposition products	No specific data.
Hazchem code	Not available.



<b>Special precautions for fire-fighters</b>	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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
<b>Special protective equipment for fire-fighters</b>	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, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	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".
<b>Environmental precautions</b>	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).

### Methods and material for containment and cleaning up

<b>Small spill</b>	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
<b>Large spill</b>	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
<b>Advice on general occupational hygiene</b>	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.
<b>Conditions for safe storage, including any incompatibilities</b>	Store between the following temperatures: 4 to 30°C (39.2 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidising materials. 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

#### Biological exposure indices

No exposure indices known.

#### Appropriate engineering controls

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### 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.

### 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.



<b>Eye/face protection</b>	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. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields.
<b>Skin protection</b>	
<b>Hand protection</b>	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. > 8 hours (breakthrough time): nitrile rubber
<b>Body protection</b>	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. Recommended: No special recommendations.
<b>Other skin protection</b>	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. Recommended: No special recommendations.
<b>Respiratory protection</b>	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Wear appropriate respiratory protection.

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

Physical state	Solid. [Powder.]	
Colour	White.	
Odour	Odourless.	
Odour threshold	Not available.	
pH	Not applicable.	
Melting point/freezing point	60 to 90°C (140 to 194°F)	
Boiling point or initial boiling point and boiling range	Decomposes	
Flash point	[Product does not sustain combustion.]	
Burning time	Not available.	
Burning rate	Not available.	
Evaporation rate	Not available.	
Flammability	Not available.	
Lower and upper explosive (flammable) limits	Not applicable.	
Vapour pressure	Not available.	
Relative vapour density	Not applicable.	
Relative density	Not available.	
Density	1.49 g/cm³	
Solubility(ies)		
	<b>Media</b>	<b>Result</b>
	cold water	Partially soluble
	hot water	Soluble
Solubility in water	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Auto-ignition temperature	Not applicable.	
Decomposition temperature	Not available.	
SADT	Not available.	
Viscosity	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): Not available.	
Flow time (ISO 2431)	Not available.	
<b>Particle characteristics</b>		
Median particle size	Not available.	



Section 10. Stability and reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials	Reactive or incompatible with the following materials: oxidising materials
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on likely routes of exposure

Inhalation	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Ingestion	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Eye contact	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	No specific data.
Skin contact	No specific data.
Eye contact	Adverse symptoms may include the following: irritation redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity

Not available.

Conclusion/Summary[Product] Not available.

Skin corrosion/irritation

Not available.

Conclusion/Summary[Product] Not available.

Serious eye damage/eye irritation

Not available.

Conclusion/Summary[Product] Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary[Product] Not available.

Respiratory or skin sensitization

Not available.

Skin

**Conclusion/Summary[Product]** Not available.

**Respiratory**

**Conclusion/Summary[Product]** Not available.

**Potential chronic health effects**

<b>General</b>	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
<b>Inhalation</b>	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
<b>Ingestion</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	No known significant effects or critical hazards.
<b>Mutagenicity</b>	No known significant effects or critical hazards.
<b>Developmental effects</b>	No known significant effects or critical hazards.
<b>Fertility effects</b>	No known significant effects or critical hazards.

**Chronic toxicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Reproductive toxicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Numerical measures of toxicity**

**Acute toxicity estimates**

N/A

**Section 12. Ecological information**

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

**Aquatic and terrestrial toxicity**

Not available.

**Conclusion/Summary[Product]** Not available.

**Persistence/degradability**

Not available.

**Conclusion/Summary[Product]** Not available.**Bioaccumulative potential**

Not available.

**Mobility in soil****Soil/water partition coefficient** Not available.**Other adverse effects** No known significant effects or critical hazards.**Section 13. Disposal considerations****Disposal methods**

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. 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

**Section 14. Transport information**

Regulatory information	UN number	Proper shipping name	Classes	PG*
<b>New Zealand Class</b>	Not regulated.	-	-	-
		No.		
<b>IATA Class</b>	Not regulated.	-	-	-
		-		
		No.		
<b>IMDG Class</b>	Not regulated.	-	-	-
		No.		

PG\* : Packing group

**Special precautions for user**

**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.

**Transport in bulk according to IMO instruments**

Not available.

**Section 15. Regulatory information****HSNO Approval Number** Not available.**HSNO Group Standard** Not available.**HSNO Classification** Not classified.**International regulations****Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list****New Zealand** This material is listed or exempted.**Australia** This material is listed or exempted.

United States	This material is active or exempted.
Canada inventory	This material is listed or exempted.
China	This material is listed or exempted.
Japan	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.

Section 16. Other information

History

Date of printing	10 September 2025
Date of issue/ Date of revision	10 September 2025
Date of previous issue	10/20/2022
Version	2
Key to abbreviations	ADG = Australian Dangerous Goods ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations
References	Not available.

 Indicates information that has changed from previously issued version.

Notice to reader

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