Safety Data Sheet

Cat. # 786-218

Concanavalin A (Con A) Agarose

Size: 100ml resin
# SECTION 1: Identification

## 1.1. Identification

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Mixture</td>
</tr>
<tr>
<td>Product name</td>
<td>Concanavalin A (Con A) Agarose</td>
</tr>
<tr>
<td>Product code</td>
<td>263C_133G</td>
</tr>
</tbody>
</table>

## 1.2. Recommended use and restrictions on use

No additional information available.

## 1.3. Supplier

Geno Technology, Inc./ G-Biosciences  
9800 Page Avenue  
Saint Louis, 63132-1429 - United States  
T 800-628-7730 - F 314-991-1504

## 1.4. Emergency telephone number

Emergency number: Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

# SECTION 2: Hazard(s) identification

## 2.1. Classification of the substance or mixture

**GHS-US classification**
- Flammable liquids Category 4: H227 - Combustible liquid
- Serious eye damage/eye irritation Category 2: H319 - Causes serious eye irritation

Full text of H statements: see section 16

## 2.2. GHS Label elements, including precautionary statements

**GHS US labelling**
- Hazard pictograms (GHS US): ![Warning]
- Signal word (GHS US): Warning
- Hazard statements (GHS US):  
  - H227 - Combustible liquid  
  - H319 - Causes serious eye irritation
- Precautionary statements (GHS US):  
  - P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
  - P264 - Wash hands, forearms and face thoroughly after handling.  
  - P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
  - P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
  - P337+P313 - If eye irritation persists: Get medical advice/attention.  
  - P370+P378 - In case of fire: Use media other than water to extinguish.  
  - P403+P235 - Store in a well-ventilated place. Keep cool.  
  - P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

## 2.3. Other hazards which do not result in classification

No additional information available.

## 2.4. Unknown acute toxicity (GHS US)

Not applicable

# SECTION 3: Composition/Information on ingredients

## 3.1. Substances

Not applicable

## 3.2. Mixtures

Not applicable
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Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact: Wash skin with plenty of water.
First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact: Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


5.2. Specific hazards arising from the chemical

Fire hazard: Combustible liquid.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

<table>
<thead>
<tr>
<th>Name</th>
<th>Common Name (Synonyms)</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethanol</td>
<td>ethanol (ethyl alcohol) / ethanol, anhydrous,undenatured / ethyl alcohol</td>
<td>(CAS-No.) 64-17-5</td>
<td>10 - 50</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td>manganese(II) chloride, tetrahydrate</td>
<td>manganese bichloride, tetrahydrate / manganese chloride (MnCl2), tetrahydrate / manganese chloride, di-, tetrahydrate / manganese chloride, tetrahydrate / manganese dichloride, tetrahydrate / manganous chloride, tetrahydrate / scacchite, tetrahydrate</td>
<td>(CAS-No.) 13446-34-9</td>
<td>10 - 50</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td>calcium chloride, dihydrate</td>
<td>cal plus (=calcium chloride, dihydrate) / calcium chloride, dihydrate / calcium chloride-2-hydrate / calcium dichloride, dihydrate / replenisher(calcium) / sinjarite</td>
<td>(CAS-No.) 10035-04-8</td>
<td>10 - 50</td>
<td>Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep cool.

Storage temperature: 4 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>manganese(II) chloride, tetrahydrate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(13446-34-9)</td>
<td></td>
<td>0.1 mg/m³ (Inhalable fraction)</td>
<td></td>
</tr>
<tr>
<td>calcium chloride, dihydrate</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>(10035-04-8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ethanol (64-17-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(64-17-5)</td>
<td></td>
<td>1000 ppm</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection: Protective gloves

Eye protection: Safety glasses

Skin and body protection: Wear suitable protective clothing

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>suspension.</td>
</tr>
<tr>
<td>Color</td>
<td>White to off-white</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>65 °C</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Relative vapor density at 20 °C : No data available
Relative density : No data available
Solubility : No data available
Log Pow : No data available
Auto-ignition temperature : No data available
 Decomposition temperature : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosion limits : No data available
 Explosive properties : No data available
Oxidizing properties : No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

**manganese(II) chloride, tetrahydrate (13446-34-9)**
ATE US (oral) 500 mg/kg body weight

**calcium chloride, dihydrate (10035-04-8)**
LD50 oral rat 2301 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit > 5000 mg/kg body weight (Other, 24 h, Rabbit, Male / female, Experimental value, Dermal)
ATE US (oral) 2301 mg/kg body weight

**ethanol (64-17-5)**
LD50 oral rat 10740 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit > 16000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l) > 20 mg/l (4 h, Rat, Inhalation)

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

**ethanol (64-17-5)**
IARC group 1 - Carcinogenic to humans
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| Reproductive toxicity          | Not classified |
| Specific target organ toxicity – single exposure | Not classified |
| Specific target organ toxicity – repeated exposure | Not classified |
| Aspiration hazard              | Not classified |
| Viscosity, kinematic           | No data available |
| Symptoms/effects after eye contact | Eye irritation. |

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Ecology - general**: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

<table>
<thead>
<tr>
<th>chemical</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>calcium chloride, dihydrate (10035-04-8)</td>
<td>10650 mg/l (96 h, Lepomis macrochirus, Literature study, Anhydrous form)</td>
<td>144 mg/l (48 h, Daphnia magna, Literature study, Anhydrous form)</td>
</tr>
<tr>
<td>ethanol (64-17-5)</td>
<td>14200 mg/l (US EPA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)</td>
<td>9300 mg/l (48 h, Daphnia magna, Pure substance)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>chemical</th>
<th>Persistence and degradability</th>
<th>Chemical oxygen demand (COD)</th>
<th>ThOD</th>
<th>BOD (% of ThOD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>manganese(II) chloride, tetrahydrate (13446-34-9)</td>
<td>Biodegradability: not applicable.</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>calcium chloride, dihydrate (10035-04-8)</td>
<td>Biodegradability: not applicable.</td>
<td>Not applicable (inorganic)</td>
<td>Not applicable (inorganic)</td>
<td></td>
</tr>
<tr>
<td>ethanol (64-17-5)</td>
<td>Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.</td>
<td>0.8 - 0.967 g O₂/g substance</td>
<td>2.1 g O₂/g substance</td>
<td>0.43</td>
</tr>
</tbody>
</table>

#### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>chemical</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>manganese(II) chloride, tetrahydrate (13446-34-9)</td>
<td>Not bioaccumulative.</td>
</tr>
<tr>
<td>calcium chloride, dihydrate (10035-04-8)</td>
<td>Not bioaccumulative.</td>
</tr>
<tr>
<td>ethanol (64-17-5)</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>chemical</th>
<th>BCF fish 1</th>
<th>Log Pow</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>manganese(II) chloride, tetrahydrate (13446-34-9)</td>
<td>1 (Other, 72 h, Cyprinus carpio, Static system, Fresh water, Read-across)</td>
<td>-0.35 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 24 °C)</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
<tr>
<td>calcium chloride, dihydrate (10035-04-8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ethanol (64-17-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

05/17/2019  EN (English US)  5/7
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<table>
<thead>
<tr>
<th>Substance</th>
<th>Test Data Available</th>
<th>Ecology - soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>calcium chloride, dihydrate (10035-04-8)</td>
<td>No (test)data on mobility of the substance available.</td>
<td></td>
</tr>
<tr>
<td>ethanol (64-17-5)</td>
<td></td>
<td>Highly mobile in soil.</td>
</tr>
</tbody>
</table>

12.5. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated

Transportation of Dangerous Goods

Transport by sea
Not regulated

Air transport
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>manganese(II) chloride, tetrahydrate (13446-34-9)</td>
<td>Not listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>calcium chloride, dihydrate (10035-04-8)</td>
<td>Not listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>ethanol (64-17-5)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA
No additional information available

<table>
<thead>
<tr>
<th>Substance</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>calcium chloride, dihydrate (10035-04-8)</td>
<td>Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)</td>
</tr>
<tr>
<td>ethanol (64-17-5)</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
</tbody>
</table>

EU-Regulations
No additional information available

National regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethanol (64-17-5)</td>
<td>Listed on IARC (International Agency for Research on Cancer)</td>
</tr>
</tbody>
</table>
SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 05/11/2017

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapour</th>
</tr>
</thead>
<tbody>
<tr>
<td>H227</td>
<td>Combustible liquid</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.