Safety Data Sheet

Cat. # 786-802

Pearl™ Monoclonal IgG Purification Kit

Size: 1L Serum/ 0.2L Ascites
SECTION 1: Identification

1.1. Identification

Product form : Substance
Substance name : Ascites PreTreat-I
CAS-No. : 124-07-2
Product code : 354A
Formula : C8H16O2
Synonyms : 1-heptanecarboxylic acid / C-8 acid / caprylic acid / heptane carboxylic acid / hexacid 898 / n-caprylic acid / neo-fat 8 / n-octoic acid / n-octylic acid / normal-caprylic acid / normal-octoic acid / normal-octylic acid / octanoic acid / octic acid / octylic acid
BIG no : 11138

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Dyestuff/pigment: intermediate product
Pharmaceutical intermediate
Cosmetic product: intermediate product

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
Skin corrosion/irritation Category 1C
H314 Causes severe skin burns and eye damage
Hazardous to the aquatic environment - Chronic Hazard Category 3
H412 Harmful to aquatic life with long lasting effects
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling
Hazard pictograms (GHS US) : ☒ 

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H314 · Causes severe skin burns and eye damage
H412 · Harmful to aquatic life with long lasting effects
Precautionary statements (GHS US) : P260 · Do not breathe dust/fume/gas/mist/vapors/spray.
P264 · Wash hands, forearms and face thoroughly after handling.
P273 · Avoid release to the environment.
P280 · Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 · If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 · If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 · If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 · If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 · Immediately call a poison center or doctor
P321 · Specific treatment (see supplemental first aid instruction on this label)
P363 · Wash contaminated clothing before reuse.
P405 · Store locked up.
P501 · Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
Ascites PreTreat-I
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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

<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>Ascites PreTreat-I</td>
<td>1-heptanecarboxylic acid / C-8 acid / caprylic acid / heptane carboxylic acid / hexacid 898 / n-caprylic acid / neo-fat 8 / n-octic acid / n-octylic acid / normal-caprylic acid / normal-octic acid / normal-octylic acid / octanoic acid / octic acid / octyl acid / octylic acid</td>
<td>(CAS-No.) 124-07-2</td>
<td>100 %</td>
<td>Skin Corr. 1C, H314 Aquatic Chronic 3, H412</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures


First-aid measures after inhalation: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact: Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

First-aid measures after eye contact: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist.


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

Potential Adverse human health effects and symptoms: Causes severe skin burns. Causes serious eye damage.

Symptoms/effects after inhalation: EXPOSURE TO HIGH CONCENTRATIONS: Corrosion of the upper respiratory tract.

Symptoms/effects after skin contact: Caustic burns/corrosion of the skin.

Symptoms/effects after eye contact: Corrosion of the eye tissue.

Symptoms/effects after ingestion: Burns to the gastric/intestinal mucosa. Possible esophageal perforation.

Chronic symptoms: No effects known.

4.3. Immediate medical attention and special treatment, if necessary
Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


Unsuitable extinguishing media: Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

5.2. Specific hazards arising from the chemical

Fire hazard: DIRECT FIRE HAZARD: Combustible. INDIRECT FIRE HAZARD: Temperature above flashpoint: higher fire/explosion hazard.
## Explosion hazard

**INDIRECT EXPLOSION HAZARD**: Reactions with explosion hazards: see "Reactivity Hazard".

### 5.3. Special protective equipment and precautions for fire-fighters

<table>
<thead>
<tr>
<th>Precautionary measures fire</th>
<th>Firefighting instructions</th>
<th>Protection during firefighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.</td>
<td>Cool tanks/drums with water spray/remove them into safety. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.</td>
<td>Heat/fire exposure: compressed air/oxygen apparatus.</td>
</tr>
</tbody>
</table>

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

<table>
<thead>
<tr>
<th>Protective equipment</th>
<th>Emergency procedures</th>
</tr>
</thead>
</table>

#### 6.1.2. For emergency responders

<table>
<thead>
<tr>
<th>Protective equipment</th>
<th>Emergency procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not attempt to take action without suitable protective equipment. For further information refer to section 8: &quot;Exposure controls/personal protection&quot;.</td>
<td></td>
</tr>
</tbody>
</table>

### 6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

<table>
<thead>
<tr>
<th>For containment</th>
<th>Methods for cleaning up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Heat exposure: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water.</td>
<td>Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.</td>
</tr>
</tbody>
</table>

**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.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<table>
<thead>
<tr>
<th>Precautions for safe handling</th>
<th>Hygiene measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep container tightly closed.</td>
<td>Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</td>
</tr>
</tbody>
</table>

### 7.2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Storage conditions</th>
<th>Heat-ignition</th>
<th>Information on mixed storage</th>
<th>Storage area</th>
<th>Special rules on packaging</th>
</tr>
</thead>
</table>

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available.
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
Materials for protective clothing:
GIVE GOOD RESISTANCE: neoprene, nitrile rubber, viton. GIVE POOR RESISTANCE: butyl rubber, natural rubber, PVC

Hand protection:
Gloves

Eye protection:
Face shield

Skin and body protection:
Corrosion-proof clothing

Respiratory protection:
High gas/vapour concentration: full face mask with filter type A

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>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Colourless to light yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic odour Unpleasant odour Irritating/pungent odour</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>3.6 (0.068 %)</td>
</tr>
<tr>
<td>Melting point</td>
<td>16 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>237 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>132 °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>0.0049 hPa (25 °C)</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>5</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.91</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>909 kg/m³</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>144.21 g/mol</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water. Soluble in methanol. Soluble in ethanol. Soluble in ether. Soluble in acetic acid. Soluble in chloroform. Soluble in petroleum spirit. Soluble in carbondisulfide. Water: 0.068 g/100ml Ethanol: complete</td>
</tr>
<tr>
<td>Log Pow</td>
<td>3.05 (Experimental value)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>440 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>6.271 mm²/s</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>5.7 mPa·s (20 °C)</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information
Specific conductivity: < 37 pS/m
VOC content: 0 %
SECTION 10: Stability and reactivity

10.1. Reactivity
Violent to explosive reaction with (strong) oxidizers. Violent exothermic reaction with (strong) bases: pressure rise and possible bursting of container.

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
None under recommended storage and handling conditions (see section 7).

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
Skin corrosion/irritation : Causes severe skin burns and eye damage.
P H: 3.6 (0.068 %)
Serious eye damage/irritation : Eye damage, category 1, implicit
P H: 3.6 (0.068 %)
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
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 : 6.271 mm²/s
Potential Adverse human health effects and symptoms : Causes severe skin burns. Causes serious eye damage.
Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Corrosion of the upper respiratory tract.
Symptoms/effects after skin contact : Caustic burns/corrosion of the skin.
Symptoms/effects after eye contact : Corrosion of the eye tissue.
Symptoms/effects after ingestion : Burns to the gastric/intestinal mucosa. Possible esophageal perforation.
Chronic symptoms : No effects known.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : Harmful to aquatic life with long lasting effects.
Ecology - water : Harmful to crustacea with long lasting effects. Harmful to fishes. Harmful to algae. pH shift.

Ascites PreTreat-I (124-07-2)

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>22 mg/l (US EPA, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 20 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Read-across, GLP)</td>
</tr>
</tbody>
</table>
12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Ascites PreTreat-I (124-07-2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Readily biodegradable in water.</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>1.27 g O₂/g substance</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Ascites PreTreat-I (124-07-2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>234 - 288 (OECD 305: Bioconcentration; Flow-Through Fish Test, 28 day(s), Danio rerio, Flow-through system, Fresh water, Read-across)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>3.05 (Experimental value)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4)</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Ascites PreTreat-I (124-07-2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension</td>
<td>0.024 N/m (70 °C)</td>
</tr>
<tr>
<td>Log Koc</td>
<td>1.84 (log Koc, SRC PCKOCWIN v2.0, QSAR)</td>
</tr>
<tr>
<td>Ecology - soil</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

Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized incinerator with energy recovery.


SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3265 Corrosive liquid, acidic, organic, n.o.s., 8, III
UN-No.(DOT) : UN3265
Proper Shipping Name (DOT) : Corrosive liquid, acidic, organic, n.o.s.
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 8 - Corrosive

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Symbols : G - Identifies PSN requiring a technical name
## DOT Special Provisions (49 CFR 172.102)

- **IB3** - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 °C (1.1 bar at 122 °F), or 130 kPa at 55 °C (1.3 bar at 131 °F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
  - T7 - 4 178.274(d)(2) Normal............ 178.275(d)(3)
  - TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
  - TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

## DOT Packaging Exceptions (49 CFR 173.xxx)

- **154**

## DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)

- **5 L**

## DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

- **60 L**

## DOT Vessel Stowage Location

- **A** - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

## DOT Vessel Stowage Other

- **40** - Stow “clear of living quarters”

## Emergency Response Guide (ERG) Number

- **153**

## Other information

- No supplementary information available.

### Transportation of Dangerous Goods

**Transport by sea**

- Not regulated

**Air transport**

- Not regulated

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

- **Ascites PreTreat-I (124-07-2)**
  - Not listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

- **CANADA**
  - No additional information available

- **EU-Regulations**
  - No additional information available

- **National regulations**
  - No additional information available

#### 15.3. US State regulations

### SECTION 16: Other information

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

- **Revision date** : 05/11/2017
Ascites PreTreat-I  
Safety Data Sheet  
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H314</th>
<th>Causes severe skin burns and eye damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.

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.
SECTION 1: Identification

1.1. Identification
Product form: Mixture
Product name: Ascite PreTreat-II
Product code: 356A

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 - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

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
Not classified

2.2. GHS Label elements, including precautionary statements
GHS-US labeling
No labeling applicable

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
This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of HazCom 2012

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 eyes with water as a precaution.
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)
No additional information available

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

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.
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.

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.
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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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

Physical state: Liquid
Color: No data available
Odor: No data available
Ascite PreTreat-II  
Safety Data Sheet  
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<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>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate</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>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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  
None under recommended storage and handling conditions (see section 7).

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

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity – single exposure</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity – repeated exposure</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
Ascite PreTreat-II
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

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.

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

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

Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea
Not regulated

Air transport
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations
No additional information available

15.2. International regulations
CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations
No additional information available
SECTION 16: Other information

Revision date: 05/11/2017

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.
## SECTION 1: Identification

### 1.1. Identification

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance name</td>
<td>IgG Isolation Buffer</td>
</tr>
<tr>
<td>Product code</td>
<td>061I</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 - United States  
T 800-628-7730 - F 314-991-1504  
technical@GBiosciences.com - www.GBiosciences.com

### 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:

Not classified

### 2.2. GHS Label elements, including precautionary statements

GHS-US labeling:

No labeling applicable

### 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

| Name | IgG Isolation Buffer |
| Full text of hazard classes and H-statements | see section 16 |

### 3.2. Mixtures

Not applicable

## 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 eyes with water as a precaution. |
| 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)

No additional information available

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

IgG Isolation Buffer
Safety Data Sheet

5.2. Specific hazards arising from the chemical
Reactivity: The product is non-reactive under normal conditions of use, storage and transport.

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.

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: Mechanically recover the product.
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.

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.
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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

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>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</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>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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

None under recommended storage and handling conditions (see section 7).

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

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
Carcinogenicity: Not classified
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

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.

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

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 applicable

Transportation of Dangerous Goods
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations
IgG Isolation Buffer
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations
CANADA
No additional information available

EU-Regulations
No additional information available
IgG Isolation Buffer
Safety Data Sheet

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

**National regulations**
No additional information available

**15.3. US State regulations**
No additional information available

**SECTION 16: Other information**

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

Revision date : 05/11/2017

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.
SECTION 1: Identification

1.1. Identification
Product form: Mixture
Product name: Pearl IgG Purification Resin
Product code: 063I

1.2. Recommended use and restrictions on use
Use of the substance/mixture: Research and development

1.3. Supplier
Geno Technology, Inc./G-Biosciences
9800 Page Avenue
Saint Louis, 63132 - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

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
Not classified

2.2. GHS Label elements, including precautionary statements
GHS-US labeling
No labeling applicable

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
This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of HazCom 2012

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 eyes with water as a precaution.
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)
No additional information available

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

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.

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.

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.

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

No additional information available

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

Physical state: Liquid

Appearance: Suspension.
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
None under recommended storage and handling conditions (see section 7).

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
Skin corrosion/irritation : Not classified
pH: 6.6
Serious eye damage/irritation : Not classified
pH: 6.6
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Pearl IgG Purification Resin
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

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.

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

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
Other information: No supplementary information available.

Transportation of Dangerous Goods

Transport by sea
Not regulated

Air transport
Not regulated

SECTION 15: Regulatory information
15.1. US Federal regulations
No additional information available

15.2. International regulations
CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available
Pearl IgG Purification Resin
Safety Data Sheet

15.3. US State regulations
No additional information available

SECTION 16: Other information

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.