Safety Data Sheet

Cat. # 786-329

OneQuant™ ProteaseArrest™ [100X]

Size: 24 x 100µl
SECTION 1: Identification

1.1. Identification

Product form: Mixture
Product name: EDTA (0.5M)
Product code: 015E

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
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
EDTA (0.5M)
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

- Odor threshold: No data available
- pH: No data available
- Melting point: Not applicable
- Freezing point: No data available
- Boiling point: No data available
- Flash point: No data available
- Relative evaporation rate (butyl acetate=1): No data available
- Flammability (solid, gas): Not applicable.
- Vapor pressure: No data available
- 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
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
- Serious eye damage/irritation: Not classified
- 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: 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

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**: OneQuant Protease Arrest™ [100X]  
**Product code**: 134O

### 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  
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

<table>
<thead>
<tr>
<th>Category</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids</td>
<td>H227</td>
<td>Combustible liquid</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Hazardous to the aquatic environment - Acute</td>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
</tbody>
</table>

Full text of H statements: see section 16

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

<table>
<thead>
<tr>
<th>GHS-US labeling</th>
<th>Hazard pictograms (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word (GHS-US)</td>
<td>: Danger</td>
</tr>
</tbody>
</table>
| Hazard statements (GHS-US) | : H227 - Combustible liquid  
| | H314 - Causes severe skin burns and eye damage  
| | H402 - Harmful to aquatic life |
| Precautionary statements (GHS-US) | : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
| | 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.  
| | P270 - Avoid contact with skin.  
| | P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
| | P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting  
| | P303+P361+P338 - 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  
| | P370+P378 - In case of fire: Use water spray to extinguish  
| | P403+P235 - Store in a well ventilated place. Keep cool.  
| | P405 - Store locked up.  
| | P501 - Dispose of contents/container to hazardous or special waste collection point, in |
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

<table>
<thead>
<tr>
<th>Name</th>
<th>Common Name (Synonyms)</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
</table>
Skin Corr. 1A, H314  
Aquatic Acute 3, H402 |
| PMSF [100X]     | alpha-toluenesulphonyl fluoride / benzenemethanesulfonyl fluoride / benzylsulfonyl fluoride / benzylsulphonyl fluoride / phenylmethanesulfonyl fluoride / phenylmethysulfonyl fluoride / PMSF (= phenylmethanesulfonyl fluoride) | (CAS-No.) 58970-76-6 | 0.5 - 2 | Flam. Liq. 4, H227  
Skin Irrit. 2, H315  
Eye Irrit. 2, H319 |
| Bestatin        |                                                                                       | (CAS-No.)          | 0.05 - 0.5 | Acute Tox. 3 (Oral), H301  
Eye Irrit. 2, H319 |

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 general:
Call a physician immediately.

First-aid measures after inhalation:
Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact:
Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact:
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion:
Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

| Symptoms/effects after skin contact | Burns.          |
| Symptoms/effects after eye contact | Serious damage to eyes. |
| Symptoms/effects after ingestion   | Burns.          |

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:
5.2. Specific hazards arising from the chemical

Fire hazard: Combustible liquid.
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. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.

Hygiene measures: Wash contaminated clothing before reuse. 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. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMSF [100X]</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Bestatin (58970-76-6)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>sodium hydroxide (1310-73-2)</td>
<td>ACGIH Ceiling (mg/m³)</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:
OneQuant Protease Arrest™ [100X]
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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>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>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 (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>
<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
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
OneQuant Protease Arrest™ [100X]
Safety Data Sheet

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

Bestatin (58970-76-6)
ATE US (oral) 100 mg/kg body weight
Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/irritation : Eye damage, category 1, implicit
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 : No data available
Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : Harmful to aquatic life.

sodium hydroxide (1310-73-2)
LC50 fish 1 45.4 mg/l (Other, 96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Solution >=50%)
EC50 Daphnia 1 40.4 mg/l (Other, 48 h, Ceriodaphnia sp., Experimental value, Nominal concentration)

12.2. Persistence and degradability

sodium hydroxide (1310-73-2)
Persistence and degradability : Biodegradability: not applicable.
Biochemical oxygen demand (BOD) : Not applicable (inorganic)
Chemical oxygen demand (COD) : Not applicable (inorganic)
ThOD : Not applicable (inorganic)

12.3. Bioaccumulative potential

PMSF [100X]
Bioaccumulative potential : No bioaccumulation data available.

sodium hydroxide (1310-73-2)
Bioaccumulative potential : Not bioaccumulative.

12.4. Mobility in soil

sodium hydroxide (1310-73-2)
Ecology - soil : No (test)data on mobility of the substance 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

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

**SECTION 15: Regulatory information**

15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bestatin (58970-76-6)</td>
<td>Not listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>sodium hydroxide (1310-73-2)</td>
<td>Not listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313</td>
</tr>
<tr>
<td>CERCLA RQ</td>
<td>1000 lb</td>
</tr>
</tbody>
</table>

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
Full text of H-phrases:

<table>
<thead>
<tr>
<th>H227</th>
<th>Combustible liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>H290</td>
<td>May be corrosive to metals</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</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.