Section 1. Identification

1.1 Product identifier
Product name: Seahorse XFp Glycolytic Rate Assay Kit, Part Number 103346-100
Part no. (chemical kit): 103346-100
Part no.: 2-deoxyglucose
Antimycin A/ Rotenone
Validation date: 4/20/2023

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: For research use only.
2-deoxyglucose
Antimycin A/ Rotenone
Uses advised against: Not for use in diagnostic procedures (RUO).

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer: Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

1.4 Emergency telephone number
In case of emergency: CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status: 2-deoxyglucose

Classification of the substance or mixture
Antimycin A/ Rotenone
H400 AQUATIC HAZARD (ACUTE) - Category 1
H410 AQUATIC HAZARD (LONG-TERM) - Category 1

2.2 GHS label elements
Hazard pictograms: Antimycin A/ Rotenone
Signal word: 2-deoxyglucose
Antimycin A/ Rotenone
No signal word.
Warning
Hazard statements: 2-deoxyglucose
Antimycin A/ Rotenone
No known significant effects or critical hazards.
H410 - Very toxic to aquatic life with long lasting effects.
Section 2. Hazards identification

Precautionary statements

Prevention:
- 2-deoxyglucose: Not applicable.
- Antimycin A/ Rotenone: P273 - Avoid release to the environment.

Response:
- 2-deoxyglucose: Not applicable.

Storage:
- 2-deoxyglucose: Not applicable.
- Antimycin A/ Rotenone: Not applicable.

Disposal:
- 2-deoxyglucose: Not applicable.
- Antimycin A/ Rotenone: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:
- 2-deoxyglucose: None known.
- Antimycin A/ Rotenone: None known.

2.3 Other hazards:
- 2-deoxyglucose: None known.
- Antimycin A/ Rotenone: None known.

Section 3. Composition/information on ingredients

Substance/mixture:
- 2-deoxyglucose: Substance
- Antimycin A/ Rotenone: Mixture

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-deoxyglucose</td>
<td>100</td>
<td>154-17-6</td>
</tr>
<tr>
<td>2-deoxy-D-glucose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antimycin A/ Rotenone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antimycin A</td>
<td>≤0.3</td>
<td>1397-94-0</td>
</tr>
<tr>
<td>(2R,6aS,12aS)-1,2,6,6a,12,12a-hexahydro-2-isopropenyl-</td>
<td>≤0.3</td>
<td>83-79-4</td>
</tr>
<tr>
<td>8,9-dimethoxychromeno[3,4-b]furo[2,3-h]chromen-6-one</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact:
- 2-deoxyglucose: 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.
- Antimycin A/ Rotenone: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation:
- 2-deoxyglucose: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Antimycin A/ Rotenone: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Date of issue: 04/20/2023
# Section 4. First aid measures

<table>
<thead>
<tr>
<th><strong>Skin contact</strong></th>
<th>2-deoxyglucose</th>
<th>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>2-deoxyglucose</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>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.</td>
</tr>
</tbody>
</table>

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

### Potential acute health effects

<table>
<thead>
<tr>
<th><strong>Eye contact</strong></th>
<th>2-deoxyglucose</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>2-deoxyglucose</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>2-deoxyglucose</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>2-deoxyglucose</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th><strong>Eye contact</strong></th>
<th>2-deoxyglucose</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>2-deoxyglucose</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>2-deoxyglucose</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>2-deoxyglucose</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Antimycin A/ Rotenone</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

### Notes to physician

<table>
<thead>
<tr>
<th>2-deoxyglucose</th>
<th>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
</tbody>
</table>

### Specific treatments

<table>
<thead>
<tr>
<th>2-deoxyglucose</th>
<th>No specific treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

### Protection of first-aiders

<table>
<thead>
<tr>
<th>2-deoxyglucose</th>
<th>No action shall be taken involving any personal risk or without suitable training.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

See toxicological information (Section 11)
Section 5. Fire-fighting measures

5.1 Extinguishing media

| Suitable extinguishing media | 2-deoxyglucose | Use an extinguishing agent suitable for the surrounding fire. |
| Antimycin A/ Rotenone | Use an extinguishing agent suitable for the surrounding fire. |

| Unsuitable extinguishing media | 2-deoxyglucose | None known. |
| Antimycin A/ Rotenone | None known. |

5.2 Special hazards arising from the substance or mixture

| Specific hazards arising from the chemical | 2-deoxyglucose | No specific fire or explosion hazard. |
| Antimycin A/ Rotenone | This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |

| Hazardous thermal decomposition products | 2-deoxyglucose | Decomposition products may include the following materials: |
| Antimycin A/ Rotenone | carbon dioxide |
| | carbon monoxide |
| Antimycin A/ Rotenone | Decomposition products may include the following materials: |
| | halogenated compounds |
| | metal oxide/oxides |

5.3 Advice for firefighters

| Special protective actions for fire-fighters | 2-deoxyglucose | 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. |
| Antimycin A/ Rotenone | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |

| Special protective equipment for fire-fighters | 2-deoxyglucose | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| Antimycin A/ Rotenone | 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

6.1 Personal precautions, protective equipment and emergency procedures

| For non-emergency personnel | 2-deoxyglucose | 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 spilled material. Put on appropriate personal protective equipment. |
| Antimycin A/ Rotenone | 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 spilled material. Put on appropriate personal protective equipment. |
Section 6. Accidental release measures

For emergency responders:

For 2-deoxyglucose:
- Avoid dispersal of spilled 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).

For Antimycin A/ Rotenone:
- Avoid dispersal of spilled 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.2 Environmental precautions:

For 2-deoxyglucose:
- Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

For Antimycin A/ Rotenone:
- Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling:

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

Advice on general occupational hygiene:
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

: 2-deoxyglucose

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Antimycin A/ Rotenone

Storage temperature: room temperature. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations:

: 2-deoxyglucose

Industrial applications, Professional applications.

Antimycin A/ Rotenone

Industrial applications, Professional applications.

Industrial sector specific solutions:

: 2-deoxyglucose

Not available.

Antimycin A/ Rotenone

Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-deoxyglucose</td>
<td>None.</td>
</tr>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>None. ACGIH TLV (United States, 1/2022). TWA: 5 mg/m³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 5 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

Biological exposure indices

No exposure indices known.

8.2 Exposure controls

Date of issue: 04/20/2023
Section 8. Exposure controls/personal protection

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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

Respiratory protection: 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.

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: 2-deoxyglucose: Solid.  
Antimycin A/ Rotenone: Solid.

Color: 2-deoxyglucose: Not available.  
Antimycin A/ Rotenone: White.

Odor: 2-deoxyglucose: Not available.  
Antimycin A/ Rotenone: Odorless.

Odor threshold: 2-deoxyglucose: Not available.  
Antimycin A/ Rotenone: Not available.

pH: 2-deoxyglucose: Not available.  
Antimycin A/ Rotenone: Not available.

Melting point/freezing point: 2-deoxyglucose: 146 to 147°C (294.8 to 296.6°F)  
Antimycin A/ Rotenone: Not available.
Section 9. Physical and chemical properties and safety characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>medium</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point, initial boiling point, and boiling range</td>
<td>2-deoxyglucose</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>2-deoxyglucose</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>2-deoxyglucose</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability</td>
<td>2-deoxyglucose</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower and upper explosion limit/flammability limit</td>
<td>2-deoxyglucose</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>2-deoxyglucose</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>2-deoxyglucose</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Relative density</td>
<td>2-deoxyglucose</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>2-deoxyglucose</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>2-deoxyglucose</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>2-deoxyglucose</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>2-deoxyglucose</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>2-deoxyglucose</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Media</td>
<td>Result</td>
</tr>
<tr>
<td>Water</td>
<td>2-deoxyglucose</td>
<td>Soluble</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

10.1 Reactivity : 2-deoxyglucose  
Antimycin A/ Rotenone  
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : 2-deoxyglucose  
Antimycin A/ Rotenone  
The product is stable.

10.3 Possibility of hazardous reactions : 2-deoxyglucose  
Antimycin A/ Rotenone  
Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : 2-deoxyglucose  
Antimycin A/ Rotenone  
No specific data.

10.5 Incompatible materials : 2-deoxyglucose  
Antimycin A/ Rotenone  
May react or be incompatible with oxidizing materials.
# Section 10. Stability and reactivity

## Section 10. Stability and reactivity

10.6 Hazardous decomposition products

- **2-deoxyglucose**

Antimycin A/ Rotenone

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

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antimycin A</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>28 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>(2R,6aS,12aS)-1,2,6,6a,12,12a-hexahydro-2-isopropenyl-8,9-dimethoxychromeno[3,4-b]furo[2,3-h]chromen-6-one</td>
<td></td>
<td>Rat</td>
<td>25 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>1 %</td>
<td>-</td>
</tr>
<tr>
<td>(2R,6aS,12aS)-1,2,6,6a,12,12a-hexahydro-2-isopropenyl-8,9-dimethoxychromeno[3,4-b]furo[2,3-h]chromen-6-one</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Sensitization

Not available.

#### Mutagenicity

**Conclusion/Summary**: Not available.

#### Carcinogenicity

**Conclusion/Summary**: Not available.

#### Reproductive toxicity

**Conclusion/Summary**: Not available.

#### Teratogenicity

**Conclusion/Summary**: Not available.

### Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>Category 3</td>
<td>-</td>
<td>Respiratory tract irritation Narcotic effects</td>
</tr>
<tr>
<td>(2R,6aS,12aS)-1,2,6,6a,12,12a-hexahydro-2-isopropenyl-8,9-dimethoxychromeno[3,4-b]furo[2,3-h]chromen-6-one</td>
<td>Category 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.
Section 11. Toxicological information

Information on the likely routes of exposure:

- **Inhalation**:
  - 2-deoxyglucose: No known significant effects or critical hazards.
  - Antimycin A/ Rotenone: No known significant effects or critical hazards.

- **Ingestion**:
  - 2-deoxyglucose: No known significant effects or critical hazards.
  - Antimycin A/ Rotenone: No known significant effects or critical hazards.

- **Skin contact**:
  - 2-deoxyglucose: No known significant effects or critical hazards.
  - Antimycin A/ Rotenone: No known significant effects or critical hazards.

Potential acute health effects:

- **Eye contact**:
  - 2-deoxyglucose: No specific data.
  - Antimycin A/ Rotenone: No specific data.

- **Inhalation**:
  - 2-deoxyglucose: No specific data.
  - Antimycin A/ Rotenone: No specific data.

- **Skin contact**:
  - 2-deoxyglucose: No specific data.
  - Antimycin A/ Rotenone: No specific data.

- **Ingestion**:
  - 2-deoxyglucose: No specific data.
  - Antimycin A/ Rotenone: No specific data.

Symptoms related to the physical, chemical and toxicological characteristics:

- **Eye contact**:
  - 2-deoxyglucose: No specific data.
  - Antimycin A/ Rotenone: No specific data.

- **Inhalation**:
  - 2-deoxyglucose: No specific data.
  - Antimycin A/ Rotenone: No specific data.

- **Skin contact**:
  - 2-deoxyglucose: No specific data.
  - Antimycin A/ Rotenone: No specific data.

- **Ingestion**:
  - 2-deoxyglucose: No specific data.
  - Antimycin A/ Rotenone: No specific data.

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

**Short term exposure**
- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Long term exposure**
- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

Potential chronic health effects:

- **General**:
  - 2-deoxyglucose: No known significant effects or critical hazards.
  - Antimycin A/ Rotenone: No known significant effects or critical hazards.

- **Carcinogenicity**:
  - 2-deoxyglucose: No known significant effects or critical hazards.
  - Antimycin A/ Rotenone: No known significant effects or critical hazards.

- **Mutagenicity**:
  - 2-deoxyglucose: No known significant effects or critical hazards.
  - Antimycin A/ Rotenone: No known significant effects or critical hazards.

- **Reproductive toxicity**:
  - 2-deoxyglucose: No known significant effects or critical hazards.
  - Antimycin A/ Rotenone: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Date of issue: 04/20/2023
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapors) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>110285.4</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>28</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Antimycin A (2R,6aS,12aS)-1,2,6,6a,12,12a-hexahydro-2-isopropenyl-8,9-dimethoxycromeno[3,4-b]furo[2,3-h]chromen-6-one</td>
<td>25</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>Acute LC50 0.000019 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours 48 hours</td>
</tr>
<tr>
<td>Antimycin A (2R,6aS,12aS)-1,2,6,6a,12,12a-hexahydro-2-isopropenyl-8,9-dimethoxycromeno[3,4-b]furo[2,3-h]chromen-6-one</td>
<td>Acute EC50 190 µg/l Fresh water</td>
<td>Crustaceans - Simocephalus serrulatus - Larvae</td>
<td>48 hours 96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 3.7 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours 96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1.9 ppb Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>48 hours 96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.3 ppb Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours 96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 1.01 ppb</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>48 hours 96 hours</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>4.1</td>
<td>25.7</td>
<td>low</td>
</tr>
<tr>
<td>Antimycin A (2R,6aS,12aS)-1,2,6,6a,12,12a-hexahydro-2-isopropenyl-8,9-dimethoxycromeno[3,4-b]furo[2,3-h]chromen-6-one</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil
Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

12.5 Other adverse effects
No known significant effects or critical hazards.
Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods: The generation of waste should be avoided or minimized 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA: Not regulated.

Additional information

Remarks: De minimis quantities

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

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

U.S. Federal regulations: TSCA 4(a) proposed test rules: Glycine TSCA 8(a) CDR Exempt/Partial exemption: Not determined Clean Water Act (CWA) 311: Nitric acid, iron(3+) salt, nonahydrate

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Not listed

Clean Air Act Section 602 Class I Substances: Not listed

Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

Date of issue: 04/20/2023
Section 15. Regulatory information

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>SARA 302 TPQ (lbs)</th>
<th>SARA 304 RQ (lbs)</th>
<th>SARA 302 TPQ (gallons)</th>
<th>SARA 304 RQ (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td>≤0.3</td>
<td>Yes</td>
<td>1000 / 10000</td>
<td>1000</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

SARA 304 RQ : 772200.8 lbs / 350579.2 kg

SARA 311/312

| Classification | Antimycin A/ Rotenone | 2-deoxyglucose | Not applicable. | Antimycin A/ Rotenone | Not applicable. |

State regulations

Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.
California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

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

Australia : Not determined.
Canada : Not determined.
China : Not determined.
Eurasian Economic Union : Russian Federation inventory: Not determined.
Japan : Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : Not determined.

Date of issue : 04/20/2023
Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Country</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Turkey</td>
<td>Not determined.</td>
</tr>
<tr>
<td>United States</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Section 16. Other information

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimycin A/ Rotenone</td>
<td></td>
</tr>
<tr>
<td>AQUATIC HAZARD (ACUTE) - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (LONG-TERM) - Category 1</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

History

Date of issue : 04/20/2023
Date of previous issue : 03/15/2019
Version : 4

Key to abbreviations

- 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
- N/A = Not available
- UN = United Nations

Notice to reader

Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.