

# SAFETY DATA SHEET

Seahorse XF Glycolysis Stress Test Kit, Part Number 103020-100

## Section 1. Identification

### 1.1 Product identifier

<b>Product name</b>	: Seahorse XF Glycolysis Stress Test Kit, Part Number 103020-100		
<b>Part no. (chemical kit)</b>	: 103020-100		
<b>Part no.</b>	<input checked="" type="checkbox"/> Glucose	Not available.	
	2-deoxyglucose	Not available.	
	Oligomycin	Not available.	
<b>Validation date</b>	: 4/28/2020		

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

<b>Material uses</b>	: For research use only. Not for use in diagnostic procedures (RUO).		
	Glucose	6 x 54.048 mg	
	2-deoxyglucose	6 x 246.24 mg	
	Oligomycin	6 x 16.572 mg	

### 1.3 Details of the supplier of the safety data sheet

<b>Supplier/Manufacturer</b>	: Agilent Technologies, Inc. 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA 800-227-9770
------------------------------	---

### 1.4 Emergency telephone number

<b>In case of emergency</b>	: CHEMTREC®: 1-800-424-9300
-----------------------------	-----------------------------

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

<b>OSHA/HCS status</b>	<input checked="" type="checkbox"/> Glucose	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	2-deoxyglucose	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Oligomycin	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

### Classification of the substance or mixture

Not classified.

<b>Ingredients of unknown toxicity</b>	: <input checked="" type="checkbox"/> Oligomycin	Percentage of the mixture consisting of ingredient (s) of unknown acute inhalation toxicity: 1 - 10%
--	--	--

## Section 2. Hazards identification

### 2.2 GHS label elements

<b>Signal word</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No signal word. No signal word. No signal word.
<b>Hazard statements</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Precautionary statements</b>		
<b>Prevention</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	Not applicable. Not applicable. Not applicable.
<b>Response</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	Not applicable. Not applicable. Not applicable.
<b>Storage</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	Not applicable. Not applicable. Not applicable.
<b>Disposal</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	Not applicable. Not applicable. Not applicable.
<b>Supplemental label elements</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	None known. None known. None known.

### 2.3 Other hazards

<b>Hazards not otherwise classified</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	None known. None known. None known.
---	---	---

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	Substance Substance Mixture
--------------------------	---	-----------------------------------

Ingredient name	%	CAS number
<input checked="" type="checkbox"/> <b>Glucose</b> Glucose	100	50-99-7
<b>2-deoxyglucose</b> 2-deoxy-D-glucose	100	154-17-6
<b>Oligomycin</b> Sodium chloride	≤3	7647-14-5





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 as hazardous to health or the environment and hence require reporting in this section.

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	:  Glucose	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.
	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.
	Oligomycin	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.
<b>Inhalation</b>	:  Glucose	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	2-deoxyglucose	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Oligomycin	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	:  Glucose	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	2-deoxyglucose	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Oligomycin	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	:  Glucose	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
	2-deoxyglucose	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
	Oligomycin	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

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

#### Potential acute health effects

## Section 4. First aid measures

<b>Eye contact</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Inhalation</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Over-exposure signs/symptoms

<b>Eye contact</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific data. No specific data. No specific data.
<b>Inhalation</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific data. No specific data. No specific data.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific data. No specific data. No specific data.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific data. No specific data. No specific data.



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

<b>Notes to physician</b>	: <input checked="" type="checkbox"/> Glucose  2-deoxyglucose  Oligomycin	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific treatment. No specific treatment. No specific treatment.
<b>Protection of first-aiders</b>	: <input checked="" type="checkbox"/> Glucose  2-deoxyglucose  Oligomycin	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.



See toxicological information (Section 11)

## Section 5. Fire-fighting measures



### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	:  Glucose	Use an extinguishing agent suitable for the surrounding fire.
	2-deoxyglucose	Use an extinguishing agent suitable for the surrounding fire.
	Oligomycin	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	:  Glucose	None known.
	2-deoxyglucose	None known.
	Oligomycin	None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	:  Glucose	No specific fire or explosion hazard.
	2-deoxyglucose	No specific fire or explosion hazard.
	Oligomycin	No specific fire or explosion hazard.
<b>Hazardous thermal decomposition products</b>	:  Glucose	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	2-deoxyglucose	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Oligomycin	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	:  Glucose	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.
	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.
	Oligomycin	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.
<b>Special protective equipment for fire-fighters</b>	:  Glucose	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	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.
	Oligomycin	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** :  glucose

2-deoxyglucose

Oligomycin

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.

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.

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.

**For emergency responders** :  glucose

2-deoxyglucose

Oligomycin

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

:  glucose

2-deoxyglucose

Oligomycin

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).

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).

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).

### 6.3 Methods and materials for containment and cleaning up

**Methods for cleaning up** :  glucose

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.



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 6. Accidental release measures


Oligomycin	disposal contractor. 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

<b>Protective measures</b>	:  glucose	Put on appropriate personal protective equipment (see Section 8).
	2-deoxyglucose	Put on appropriate personal protective equipment (see Section 8).
	Oligomycin	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	:  glucose	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.
	2-deoxyglucose	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.
	Oligomycin	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.

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

:  glucose	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.
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

## Section 7. Handling and storage

Oligomycin

incompatible materials before handling or use. 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)

<b>Recommendations</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	Industrial applications, Professional applications. Consumer applications. Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	Not applicable. Not applicable. Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> <b>Glucose</b> Glucose	None.
<b>2-deoxyglucose</b> 2-deoxy-D-glucose	None.
<b>Oligomycin</b> Sodium chloride	None.

### 8.2 Exposure controls

<b>Appropriate engineering controls</b>	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
<b>Environmental exposure controls</b>	: 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

<b>Hygiene measures</b>	: 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.
-------------------------	---



## Section 8. Exposure controls/personal protection

- 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.
- 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

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: Glucose 2-deoxyglucose Oligomycin	Solid. Solid. Solid.
<b>Color</b>	: Glucose 2-deoxyglucose Oligomycin	Not available. Not available. White.
<b>Odor</b>	: Glucose 2-deoxyglucose Oligomycin	Not available. Not available. Odorless.
<b>Odor threshold</b>	: Glucose 2-deoxyglucose Oligomycin	Not available. Not available. Not available.
<b>pH</b>	: Glucose 2-deoxyglucose Oligomycin	Not available. Not available. Not available.
<b>Melting point</b>	: Glucose 2-deoxyglucose Oligomycin	146°C (294.8°F) 146 to 147°C (294.8 to 296.6°F) Not available.
<b>Boiling point</b>	: Glucose 2-deoxyglucose Oligomycin	Not available. Not available. Not available.
<b>Flash point</b>	: Glucose 2-deoxyglucose Oligomycin	Not available. Not available. Not available.
<b>Evaporation rate</b>	: Glucose 2-deoxyglucose Oligomycin	Not available. Not available. Not available.
<b>Flammability (solid, gas)</b>	: Glucose 2-deoxyglucose Oligomycin	Not available. Not available. Not available.

## Section 9. Physical and chemical properties

<b>Lower and upper explosive (flammable) limits</b>	: <input checked="" type="checkbox"/> Glucose	Not available.
	2-deoxyglucose	Not available.
	Oligomycin	Not available.
<b>Vapor pressure</b>	: <input checked="" type="checkbox"/> Glucose	Not available.
	2-deoxyglucose	Not available.
	Oligomycin	Not available.
<b>Vapor density</b>	: <input checked="" type="checkbox"/> Glucose	Not available.
	2-deoxyglucose	Not available.
	Oligomycin	Not available.
<b>Relative density</b>	: <input checked="" type="checkbox"/> Glucose	1.56
	2-deoxyglucose	Not available.
	Oligomycin	Not available.
<b>Solubility</b>	: <input checked="" type="checkbox"/> Glucose	Easily soluble in the following materials: cold water and hot water.
	2-deoxyglucose	Soluble in the following materials: cold water and hot water.
	Oligomycin	Not available.
<b>Partition coefficient: n-octanol/water</b>	: <input checked="" type="checkbox"/> Glucose	-3.24
	2-deoxyglucose	Not available.
	Oligomycin	Not available.
<b>Auto-ignition temperature</b>	: <input checked="" type="checkbox"/> Glucose	Not available.
	2-deoxyglucose	Not available.
	Oligomycin	Not available.
<b>Decomposition temperature</b>	: <input checked="" type="checkbox"/> Glucose	Not available.
	2-deoxyglucose	Not available.
	Oligomycin	Not available.
<b>Viscosity</b>	: <input checked="" type="checkbox"/> Glucose	Not available.
	2-deoxyglucose	Not available.
	Oligomycin	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: <input checked="" type="checkbox"/> Glucose	No specific test data related to reactivity available for this product or its ingredients.
	2-deoxyglucose	No specific test data related to reactivity available for this product or its ingredients.
	Oligomycin	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: <input checked="" type="checkbox"/> Glucose	The product is stable.
	2-deoxyglucose	The product is stable.
	Oligomycin	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: <input checked="" type="checkbox"/> Glucose	Under normal conditions of storage and use, hazardous reactions will not occur.
	2-deoxyglucose	Under normal conditions of storage and use, hazardous reactions will not occur.
	Oligomycin	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: <input checked="" type="checkbox"/> Glucose	No specific data.
	2-deoxyglucose	No specific data.
	Oligomycin	No specific data.

## Section 10. Stability and reactivity

**10.5 Incompatible materials** :  Glucose May react or be incompatible with oxidizing materials.  
 2-deoxyglucose May react or be incompatible with oxidizing materials.  
 Oligomycin May react or be incompatible with oxidizing materials.

**10.6 Hazardous decomposition products** :  Glucose Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
 2-deoxyglucose Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
 Oligomycin 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

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> Glucose Glucose	LD50 Oral	Rat	25800 mg/kg	-
<b>Oligomycin</b> Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<input checked="" type="checkbox"/> Oligomycin Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

#### 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)

Not available.

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

Not available.

#### Aspiration hazard

## Section 11. Toxicological information

Not available.

<b>Information on the likely routes of exposure</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	Not available. Not available. Not available.
<b><u>Potential acute health effects</u></b>		
<b>Eye contact</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Inhalation</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific data. No specific data. No specific data.
<b>Inhalation</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific data. No specific data. No specific data.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific data. No specific data. No specific data.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No specific data. No specific data. 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

<b>General</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

## Section 11. Toxicological information

<b>Teratogenicity</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: <input checked="" type="checkbox"/> Glucose 2-deoxyglucose Oligomycin	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<input checked="" type="checkbox"/> Glucose Glucose	25800	N/A	N/A	N/A	N/A
<b>Oligomycin</b> Oligomycin Sodium chloride	110784 3000	N/A N/A	N/A N/A	N/A N/A	N/A N/A

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> Oligomycin Sodium chloride	Acute EC50 4.74 g/L Fresh water Acute EC50 519.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water  Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Algae - Chlamydomonas reinhardtii Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 48 hours 96 hours 96 hours 3 weeks  96 hours 21 days 8 weeks

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<input checked="" type="checkbox"/> Glucose Glucose	-3.24	-	low

### 12.4 Mobility in soil

## Section 12. Ecological information

**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. 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.

**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 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

## Section 15. Regulatory information

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

<b>Classification</b>	:	<input checked="" type="checkbox"/> Glucose	Not applicable.
		2-deoxyglucose	Not applicable.
		Oligomycin	Not applicable.

#### Composition/information on ingredients

Name	%	Classification
<input checked="" type="checkbox"/> Oligomycin		
Sodium chloride	≤3	EYE IRRITATION - Category 2A

### 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.

**Europe** :  Not determined.

**Japan** : **Japan inventory (ENCS):** Not determined.  
**Japan inventory (ISHL):** Not determined.

## Section 15. Regulatory information

<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<b>Thailand</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: <input checked="" type="checkbox"/> Not determined.

## Section 16. Other information

### History

<b>Date of issue</b>	: 04/28/2020
<b>Date of previous issue</b>	: 01/31/2017
<b>Version</b>	: 3

### 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
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
: N/A = Not available
: UN = United Nations

### Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> Not classified.	

Indicates information that has changed from previously issued version.

### 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.