

# SAFETY DATA SHEET

Seahorse XF Cell Energy Phenotype Test Kit, Part Number 103325-100

## Section 1. Identification

**Product identifier** : Seahorse XF Cell Energy Phenotype Test Kit, Part Number 103325-100  
**Part No. (Chemical Kit)** : 103325-100  
**Part No.** : Oligomycin : Not available.  
 FCCP : Not available.

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

For research use only. Not for use in diagnostic procedures (RUO).

Oligomycin 12 x 5.722 mg  
 FCCP 12 x 22.593 mg

**Supplier/Manufacturer** : Agilent Technologies Australia Pty Ltd  
 679 Springvale Road  
 Mulgrave  
 Victoria 3170, Australia  
 1800 802 402

**Emergency telephone number (with hours of operation)** : CHEMTREC®: (61)-290372994

## Section 2. Hazard(s) identification

### Classification of the substance or mixture

Not classified.

Oligomycin	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 95.8%
FCCP	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 96.6%
Oligomycin	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 95.8%
FCCP	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 96.6%

### GHS label elements

**Signal word** : Oligomycin : No signal word.  
 FCCP : No signal word.  
**Hazard statements** : Oligomycin : No known significant effects or critical hazards.  
 FCCP : No known significant effects or critical hazards.

### Precautionary statements

**Prevention** : Oligomycin : Not applicable.  
 FCCP : Not applicable.  
**Response** : Oligomycin : Not applicable.  
 FCCP : Not applicable.  
**Storage** : Oligomycin : Not applicable.  
 FCCP : Not applicable.  
**Disposal** : Oligomycin : Not applicable.  
 FCCP : Not applicable.  
**Supplemental label elements** : Oligomycin : Not applicable.  
 FCCP : Not applicable.

## Section 2. Hazard(s) identification

**Other hazards which do not result in classification** : Oligomycin  
FCCP

None known.  
None known.

## Section 3. Composition and ingredient information

**Substance/mixture** : Oligomycin  
FCCP

Mixture  
Mixture

### CAS number/other identifiers

There are no 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

### Description of necessary first aid measures

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

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

#### Potential acute health effects

<b>Eye contact</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Inhalation</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.

## Section 4. First aid measures

<b>Ingestion</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b><u>Over-exposure signs/symptoms</u></b>		
<b>Eye contact</b>	: Oligomycin FCCP	No specific data. No specific data.
<b>Inhalation</b>	: Oligomycin FCCP	No specific data. No specific data.
<b>Skin contact</b>	: Oligomycin FCCP	No specific data. No specific data.
<b>Ingestion</b>	: Oligomycin FCCP	No specific data. No specific data.

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

<b>Notes to physician</b>	: Oligomycin  FCCP	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>	: Oligomycin FCCP	No specific treatment. No specific treatment.
<b>Protection of first-aiders</b>	: Oligomycin  FCCP	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. Firefighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	: Oligomycin  FCCP	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: Oligomycin FCCP	None known. None known.
<b>Specific hazards arising from the chemical</b>	: Oligomycin FCCP	No specific fire or explosion hazard. No specific fire or explosion hazard.
<b>Hazardous thermal decomposition products</b>	: Oligomycin  FCCP	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides

## Section 5. Firefighting measures

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

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: 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 spilt material. Put on appropriate personal protective equipment.
	FCCP	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 spilt material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: Oligomycin	If specialised 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".
	FCCP	If specialised 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".
<b>Environmental precautions</b>	: Oligomycin	Avoid dispersal of spilt 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).
	FCCP	Avoid dispersal of spilt 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).
<b><u>Methods and material for containment and cleaning up</u></b>		
<b>Methods for cleaning up</b>	: Oligomycin	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	FCCP	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	: Oligomycin	Put on appropriate personal protective equipment (see Section 8).
	FCCP	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	: 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.
	FCCP	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.
<b>Conditions for safe storage, including any incompatibilities</b>	: Oligomycin	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 unlabelled containers. Use appropriate containment to avoid environmental contamination.
	FCCP	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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls and personal protection

### Control parameters

#### Occupational exposure limits

None.

<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

## Section 8. Exposure controls and personal protection

- 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.
- 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

### Appearance

<b>Physical state</b>	: Oligomycin FCCP	Solid. Solid.
<b>Colour</b>	: Oligomycin FCCP	White. Pale colour. / Yellow.
<b>Odour</b>	: Oligomycin FCCP	Odourless. Odourless.
<b>Odour threshold</b>	: Oligomycin FCCP	Not available. Not available.
<b>pH</b>	: Oligomycin FCCP	Not available. Not available.
<b>Melting point</b>	: Oligomycin FCCP	Not available. Not available.
<b>Boiling point</b>	: Oligomycin FCCP	Not available. Not available.
<b>Flash point</b>	: Oligomycin FCCP	Not available. Not available.
<b>Evaporation rate</b>	: Oligomycin FCCP	Not available. Not available.
<b>Flammability (solid, gas)</b>	: Oligomycin FCCP	Not available. Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Oligomycin FCCP	Not available. Not available.
<b>Vapour pressure</b>	: Oligomycin FCCP	Not available. Not available.
<b>Vapour density</b>	: Oligomycin FCCP	Not available. Not available.
<b>Relative density</b>	: Oligomycin FCCP	Not available. Not available.
<b>Solubility</b>	: Oligomycin FCCP	Not available. Not available.

## Section 9. Physical and chemical properties

<b>Partition coefficient: n-octanol/water</b>	: Oligomycin FCCP	Not available. Not available.
<b>Auto-ignition temperature</b>	: Oligomycin FCCP	Not available. Not available.
<b>Decomposition temperature</b>	: Oligomycin FCCP	Not available. Not available.
<b>Viscosity</b>	: Oligomycin FCCP	Not available. Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: Oligomycin  FCCP	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: Oligomycin FCCP	The product is stable. The product is stable.
<b>Possibility of hazardous reactions</b>	: Oligomycin  FCCP	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: Oligomycin FCCP	No specific data. No specific data.
<b>Incompatible materials</b>	: Oligomycin FCCP	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
<b>Hazardous decomposition products</b>	: Oligomycin  FCCP	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Not available.

#### Irritation/Corrosion

Not available.

#### Sensitisation

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity



## Section 11. Toxicological information

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : Oligomycin  
FCCP  
Routes of entry anticipated: Oral, Dermal, Inhalation.  
Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

<b>Eye contact</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Inhalation</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: Oligomycin FCCP	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>	: Oligomycin FCCP	No specific data. No specific data.
<b>Inhalation</b>	: Oligomycin FCCP	No specific data. No specific data.
<b>Skin contact</b>	: Oligomycin FCCP	No specific data. No specific data.
<b>Ingestion</b>	: Oligomycin FCCP	No specific data. No specific data.

### Delayed and immediate effects as well as 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

Not available.

<b>General</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: Oligomycin FCCP	No known significant effects or critical hazards. No known significant effects or critical hazards.



## Section 11. Toxicological information

**Fertility effects** : Oligomycin : No known significant effects or critical hazards.  
FCCP : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimised 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

### Regulatory information

**ADG / IMDG / IATA** : Not regulated as Dangerous Goods according to the ADG Code .

**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 Annex II of Marpol and the IBC Code** : Not available.

## Section 15. Regulatory information

### Standard Uniform Schedule of Medicine and Poisons

Not regulated.

### Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

**Australia inventory (AICS)** : Not determined.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### International lists

#### National inventory

<b>Canada</b>	: Not determined.
<b>China</b>	: Not determined.
<b>Europe</b>	: Not determined.
<b>Japan</b>	: <b>Japan inventory (ENCS)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.

## Section 16. Any other relevant information

### History

**Date of issue/Date of revision** : 12/05/2016

**Date of previous issue** : No previous validation.

**Version** : 1

### Key to abbreviations

: ADG = Australian Dangerous Goods  
 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)  
 NOHSC = National Occupational Health and Safety Commission  
 SUSMP = Standard Uniform Schedule of Medicine and Poisons  
 UN = United Nations

## Section 16. Any other relevant information

### [Procedure used to derive the classification](#)

Classification	Justification
Not classified.	

**References** : Not available.

✔ Indicates information that has changed from previously issued version.

### [Notice to reader](#)

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