

SAFETY DATA SHEET

Seahorse XF T Cell Metabolic Profiling Kit

Section 1. Identification

Product identifier	: Seahorse XF T Cell Metabolic Profiling Kit	
Part no. (chemical kit)	: 103772-100	
Part no.	: <input checked="" type="checkbox"/> XF oligomycin A	Not available.
	: XF Bam15	Not available.
	: XF Rot/AA	Not available.

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

Identified uses	: <input type="checkbox"/> For research use only.	
	: <input checked="" type="checkbox"/> XF oligomycin A	6 x 13.548 mg
	: XF Bam15	6 x 115.705 mg
	: XF Rot/AA	6 x 11.588 mg
Uses advised against	: <input checked="" type="checkbox"/> Not for use in diagnostic procedures (RUO).	

Supplier/Manufacturer	: Agilent Technologies, Inc. 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA 800-227-9770
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Emergency telephone number (with hours of operation)	: CHEMTREC®: 1-800-424-9300
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Section 2. Hazard identification

Classification of the substance or mixture

XF Rot/AA

H400

AQUATIC HAZARD (ACUTE) - Category 1

H410

AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements

Hazard pictograms : XF Rot/AA



Signal word : XF oligomycin A
XF Bam15
XF Rot/AA

No signal word.
No signal word.
Warning

Hazard statements : XF oligomycin A
XF Bam15
XF Rot/AA

No known significant effects or critical hazards.
No known significant effects or critical hazards.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : XF oligomycin A
XF Bam15
XF Rot/AA

Not applicable.
Not applicable.
P273 - Avoid release to the environment.

Response : XF oligomycin A
XF Bam15
XF Rot/AA

Not applicable.
Not applicable.
P391 - Collect spillage.

Section 2. Hazard identification

Storage	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	Not applicable. Not applicable. Not applicable.
Disposal	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	Not applicable. Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	None known. None known. None known.
Other hazards which do not result in classification	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	None known. None known. None known.

Section 3. Composition/information on ingredients

Substance/mixture	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	Mixture Mixture Mixture
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Ingredient name	Synonyms	% (w/w)	CAS number
<input checked="" type="checkbox"/> XF Rot/AA			
Antimycin A	Antimycin A	≥0.1 - ≤1	1397-94-0
(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	Rotenone	≤0.1	83-79-4

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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

Description of necessary first aid measures

Eye contact	: <input checked="" type="checkbox"/> XF oligomycin A	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.
	XF Bam15	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.
	XF Rot/AA	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.

Section 4. First-aid measures

Inhalation	: <input checked="" type="checkbox"/> XF oligomycin A	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	XF Bam15	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	XF Rot/AA	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin contact	: <input checked="" type="checkbox"/> XF oligomycin A	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	XF Bam15	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	XF Rot/AA	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: <input checked="" type="checkbox"/> XF oligomycin A	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.
	XF Bam15	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.
	XF Rot/AA	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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	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

Eye contact	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	No specific data. No specific data. No specific data.
Inhalation	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	No specific data. No specific data. No specific data.
Skin contact	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	No specific data. No specific data. No specific data.

Section 4. First-aid measures

Ingestion	: <input checked="" type="checkbox"/> XF oligomycin A	No specific data.
	XF Bam15	No specific data.
	XF Rot/AA	No specific data.

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

Notes to physician	: <input checked="" type="checkbox"/> XF oligomycin A	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	XF Bam15	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	XF Rot/AA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: <input checked="" type="checkbox"/> XF oligomycin A	No specific treatment.
	XF Bam15	No specific treatment.
	XF Rot/AA	No specific treatment.
Protection of first-aiders	: <input checked="" type="checkbox"/> XF oligomycin A	No action shall be taken involving any personal risk or without suitable training.
	XF Bam15	No action shall be taken involving any personal risk or without suitable training.
	XF Rot/AA	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	: <input checked="" type="checkbox"/> XF oligomycin A	Use an extinguishing agent suitable for the surrounding fire.
	XF Bam15	Use an extinguishing agent suitable for the surrounding fire.
	XF Rot/AA	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: <input checked="" type="checkbox"/> XF oligomycin A	None known.
	XF Bam15	None known.
	XF Rot/AA	None known.
Specific hazards arising from the chemical	: <input checked="" type="checkbox"/> XF oligomycin A	No specific fire or explosion hazard.
	XF Bam15	No specific fire or explosion hazard.
	XF Rot/AA	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	: <input checked="" type="checkbox"/> XF oligomycin A	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	XF Bam15	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	XF Rot/AA	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: <input checked="" type="checkbox"/> XF oligomycin A	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.
	XF Bam15	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.
	XF Rot/AA	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	: <input checked="" type="checkbox"/> XF oligomycin A	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	XF Bam15	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	XF Rot/AA	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

For non-emergency personnel	: <input checked="" type="checkbox"/> XF oligomycin A	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.
	XF Bam15	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.
	XF Rot/AA	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	: <input checked="" type="checkbox"/> XF oligomycin A	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".
	XF Bam15	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".
	XF Rot/AA	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".

Section 6. Accidental release measures

Environmental precautions	: <input checked="" type="checkbox"/> XF oligomycin A	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).
	XF Bam15	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).
	XF Rot/AA	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.

Methods and materials for containment and cleaning up

Methods for cleaning up	: <input checked="" type="checkbox"/> XF oligomycin A	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.
	XF Bam15	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.
	XF Rot/AA	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

Precautions for safe handling

Protective measures	: <input checked="" type="checkbox"/> XF oligomycin A	Put on appropriate personal protective equipment (see Section 8).
	XF Bam15	Put on appropriate personal protective equipment (see Section 8).
	XF Rot/AA	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: <input checked="" type="checkbox"/> XF oligomycin A	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.
	XF Bam15	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

Section 7. Handling and storage

XF Rot/AA

contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. 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.

Conditions for safe storage, including any incompatibilities : XF oligomycin A

XF Bam15

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.

XF Rot/AA

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.

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.

Section 8. Exposure controls/personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
XF Rot/AA (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	CA Alberta Provincial (Canada, 3/2023). OEL: 5 mg/m ³ 8 hours. CA British Columbia Provincial (Canada, 8/2023). TWA: 5 mg/m ³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 5 mg/m ³ 8 hours. CA Quebec Provincial (Canada, 9/2023). TWAEV: 5 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 4/2021). STEL: 10 mg/m ³ 15 minutes. TWA: 5 mg/m ³ 8 hours.

Biological exposure indices

No exposure indices known.

- 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.

Section 8. Exposure controls/personal protection

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	: XF oligomycin A XF Bam15 XF Rot/AA	Solid. Solid. Solid.
Color	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Odor	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Odor threshold	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
pH	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Melting point/freezing point	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Boiling point, initial boiling point, and boiling range	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Flash point	: XF oligomycin A XF Bam15 XF Rot/AA	Not applicable. Not applicable. Not applicable.
Evaporation rate	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Flammability	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Lower and upper explosion limit/flammability limit	: XF oligomycin A XF Bam15 XF Rot/AA	Not applicable. Not applicable. Not applicable.
Vapor pressure	: Not available.	
Relative vapor density	: XF oligomycin A XF Bam15 XF Rot/AA	Not applicable. Not applicable. Not applicable.
Relative density	: XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Solubility(ies)	: Not available.	
Partition coefficient: n-octanol/water	: XF oligomycin A XF Bam15 XF Rot/AA	Not applicable. Not applicable. Not applicable.

Section 9. Physical and chemical properties and safety characteristics

Auto-ignition temperature	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	Not applicable. Not applicable. Not applicable.
Decomposition temperature	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.
Viscosity	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	Not applicable. Not applicable. Not applicable.
<u>Particle characteristics</u>		
Median particle size	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	Not available. Not available. Not available.

Section 10. Stability and reactivity

Reactivity	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	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. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	The product is stable. The product is stable. The product is stable.
Possibility of hazardous reactions	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	No specific data. No specific data. No specific data.
Incompatible materials	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.
Hazardous decomposition products	: <input checked="" type="checkbox"/> XF oligomycin A XF Bam15 XF Rot/AA	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. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
XF Rot/AA Antimycin A (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	LD50 Oral LD50 Oral	Rat Rat	28 mg/kg 25 mg/kg	- -

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
XF Rot/AA (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	Eyes - Mild irritant	Rabbit	-	1 %	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	IARC	NTP	ACGIH
XF Rot/AA (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	-	-	A4

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
XF Rot/AA (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	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on the likely routes of exposure : oligomycin A Not available.
 XF Bam15 Not available.
 XF Rot/AA Not available.

Potential acute health effects

Eye contact : oligomycin A No known significant effects or critical hazards.
 XF Bam15 No known significant effects or critical hazards.
 XF Rot/AA No known significant effects or critical hazards.

Inhalation : oligomycin A No known significant effects or critical hazards.
 XF Bam15 No known significant effects or critical hazards.
 XF Rot/AA No known significant effects or critical hazards.

Skin contact : oligomycin A No known significant effects or critical hazards.
 XF Bam15 No known significant effects or critical hazards.
 XF Rot/AA No known significant effects or critical hazards.

Ingestion : oligomycin A No known significant effects or critical hazards.
 XF Bam15 No known significant effects or critical hazards.
 XF Rot/AA No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : oligomycin A No specific data.
 XF Bam15 No specific data.
 XF Rot/AA No specific data.

Inhalation : oligomycin A No specific data.
 XF Bam15 No specific data.
 XF Rot/AA No specific data.

Skin contact : oligomycin A No specific data.
 XF Bam15 No specific data.
 XF Rot/AA No specific data.

Ingestion : oligomycin A No specific data.
 XF Bam15 No specific data.
 XF Rot/AA 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 : oligomycin A No known significant effects or critical hazards.
 XF Bam15 No known significant effects or critical hazards.
 XF Rot/AA No known significant effects or critical hazards.

Carcinogenicity : oligomycin A No known significant effects or critical hazards.
 XF Bam15 No known significant effects or critical hazards.
 XF Rot/AA No known significant effects or critical hazards.

Mutagenicity : oligomycin A No known significant effects or critical hazards.
 XF Bam15 No known significant effects or critical hazards.
 XF Rot/AA No known significant effects or critical hazards.

Reproductive toxicity : oligomycin A No known significant effects or critical hazards.
 XF Bam15 No known significant effects or critical hazards.
 XF Rot/AA No known significant effects or critical hazards.

Section 11. Toxicological information

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)
XF oligomycin A XF oligomycin A	98475.3	N/A	N/A	N/A	N/A
XF Bam15 XF Bam15	99002.1	N/A	N/A	N/A	N/A
XF Rot/AA XF Rot/AA	99154.9	N/A	N/A	N/A	N/A
Antimycin A	28	N/A	N/A	N/A	N/A
(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	25	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
XF Rot/AA Antimycin A (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	Acute LC50 0.000019 mg/l Fresh water Acute EC50 190 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i> Crustaceans - <i>Simocephalus serrulatus</i> - Larvae	96 hours 48 hours
	Acute EC50 3.7 µg/l Fresh water Acute LC50 1.9 ppb Fresh water Chronic NOEC 0.3 ppb Fresh water Chronic NOEC 1.01 ppb	Daphnia - <i>Daphnia magna</i> Fish - <i>Oncorhynchus mykiss</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Oncorhynchus mykiss</i>	48 hours 96 hours 21 days 32 days

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
XF Rot/AA (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	4.1	25.7	Low

Mobility in soil

Section 12. Ecological information

Soil/water partition coefficient (K_{oc}) : 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 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.

Section 14. Transport information

TDG / 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

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

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

Canada : Not determined.

Section 15. Regulatory information

United States : Not determined.

Section 16. Other information

History

Date of issue/Date of revision : 06/10/2024

Date of previous issue : 06/29/2021

Version : 2

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 HPR = Hazardous Products Regulations
 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
XF Rot/AA AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1	Calculation method Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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