SAFETY DATA SHEET

Agilent Technologies

Seahorse XFp T Cell Metabolic Profiling Kit

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : Seahorse XFp T Cell Metabolic Profiling Kit

Part no. (chemical kit) : 103771-100

Part no. :

XFp oligomycin A	Not available.
XFp Bam15	Not available.
XFp Rot/AA	Not available.

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

Identified uses : For research use only.

XFp oligomycin A	6 x 3.544 mg
XFp Bam15	6 x 14.463 mg
XFp Rot/AA	6 x 3.493 mg

Uses advised against : Not for use in diagnostic procedures (RUO).

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition :

XFp oligomycin A	Mixture
XFp Bam15	Mixture
XFp Rot/AA	Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

XFp Rot/AA

H400	SHORT-TERM (ACUTE) AQUATIC HAZARD	Category 1
H410	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 1

XFp oligomycin A	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
XFp Bam15	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
XFp Rot/AA	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity :

XFp oligomycin A	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
XFp Bam15	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
XFp Rot/AA	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms : XFp Rot/AA

Signal word	: XFp oligomycin A	No signal word.
	XFp Bam15	No signal word.
	XFp Rot/AA	Warning
Hazard statements	: XFp oligomycin A	No known significant effects or critical hazards.
	XFp Bam15	No known significant effects or critical hazards.
	XFp Rot/AA	H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention	: XFp oligomycin A	Not applicable.
	XFp Bam15	Not applicable.
	XFp Rot/AA	P273 - Avoid release to the environment.
Response	: XFp oligomycin A	Not applicable.
	XFp Bam15	Not applicable.
	XFp Rot/AA	P391 - Collect spillage.
Storage	: XFp oligomycin A	Not applicable.
	XFp Bam15	Not applicable.
	XFp Rot/AA	Not applicable.
Disposal	: XFp oligomycin A	Not applicable.
	XFp Bam15	Not applicable.
	XFp Rot/AA	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: XFp oligomycin A	Not applicable.
	XFp Bam15	Not applicable.
	XFp Rot/AA	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: XFp oligomycin A	Not applicable.
	XFp Bam15	Not applicable.
	XFp Rot/AA	Not applicable.

Special packaging requirements

Tactile warning of danger	: XFp oligomycin A	Not applicable.
	XFp Bam15	Not applicable.
	XFp Rot/AA	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: XFp oligomycin A	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	XFp Bam15	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	XFp Rot/AA	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: XFp oligomycin A	None known.
	XFp Bam15	None known.
	XFp Rot/AA	None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : XFp oligomycin A — Mixture
XFp Bam15 — Mixture
XFp Rot/AA — Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
XFp Rot/AA					
Antimycin A	CAS: 1397-94-0	<0.1	Acute Tox. 2, H300 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 28 mg/kg M [Acute] = 10000 M [Chronic] = 10000	[1]
(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	EC: 201-501-9 CAS: 83-79-4 Index: 650-005-00-2	<0.1	Acute Tox. 3, H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 100 mg/kg M [Acute] = 100 M [Chronic] = 100	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

XFp Rot/AA

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : XFp 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.

XFp 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.

XFp 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.

Inhalation : XFp oligomycin A — Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

XFp Bam15 — Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

XFp Rot/AA — Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : XFp oligomycin A — Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

XFp Bam15 — Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

XFp Rot/AA — Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

SECTION 4: First aid measures

Ingestion	:	XFp 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.
		XFp 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.
		XFp 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.
Protection of first-aiders	:	XFp oligomycin A	No action shall be taken involving any personal risk or without suitable training.
		XFp Bam15	No action shall be taken involving any personal risk or without suitable training.
		XFp Rot/AA	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	:	XFp oligomycin A	No known significant effects or critical hazards.
		XFp Bam15	No known significant effects or critical hazards.
		XFp Rot/AA	No known significant effects or critical hazards.
Inhalation	:	XFp oligomycin A	No known significant effects or critical hazards.
		XFp Bam15	No known significant effects or critical hazards.
		XFp Rot/AA	No known significant effects or critical hazards.
Skin contact	:	XFp oligomycin A	No known significant effects or critical hazards.
		XFp Bam15	No known significant effects or critical hazards.
		XFp Rot/AA	No known significant effects or critical hazards.
Ingestion	:	XFp oligomycin A	No known significant effects or critical hazards.
		XFp Bam15	No known significant effects or critical hazards.
		XFp Rot/AA	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	XFp oligomycin A	No specific data.
		XFp Bam15	No specific data.
		XFp Rot/AA	No specific data.
Inhalation	:	XFp oligomycin A	No specific data.
		XFp Bam15	No specific data.
		XFp Rot/AA	No specific data.
Skin contact	:	XFp oligomycin A	No specific data.
		XFp Bam15	No specific data.
		XFp Rot/AA	No specific data.
Ingestion	:	XFp oligomycin A	No specific data.
		XFp Bam15	No specific data.
		XFp Rot/AA	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	XFp oligomycin A	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		XFp Bam15	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		XFp Rot/AA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	XFp oligomycin A	No specific treatment.
		XFp Bam15	No specific treatment.
		XFp Rot/AA	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	XFp oligomycin A	Use an extinguishing agent suitable for the surrounding fire.
		XFp Bam15	Use an extinguishing agent suitable for the surrounding fire.
		XFp Rot/AA	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	XFp oligomycin A	None known.
		XFp Bam15	None known.
		XFp Rot/AA	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	XFp oligomycin A	No specific fire or explosion hazard.
		XFp Bam15	No specific fire or explosion hazard.
		XFp 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 combustion products	:	XFp oligomycin A	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
		XFp Bam15	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
		XFp Rot/AA	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters	:	XFp 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.
		XFp 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.
		XFp 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	:	XFp 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
		XFp Bam15	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
		XFp 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: XFp 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 spilt material. Put on appropriate personal protective equipment.
	XFp 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 spilt material. Put on appropriate personal protective equipment.
	XFp 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 spilt material. Put on appropriate personal protective equipment.
For emergency responders	: XFp oligomycin A	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".
	XFp Bam15	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".
	XFp Rot/AA	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".

6.2 Environmental precautions

	: XFp oligomycin A	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).
	XFp Bam15	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).
	XFp Rot/AA	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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: XFp oligomycin A	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.
	XFp Bam15	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.
	XFp Rot/AA	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.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	:	XFp oligomycin A	Put on appropriate personal protective equipment (see Section 8).
		XFp Bam15	Put on appropriate personal protective equipment (see Section 8).
		XFp 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	:	XFp 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.
		XFp 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 contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
		XFp Rot/AA	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

Storage	:	XFp oligomycin A	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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
		XFp 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
		XFp 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 unlabelled containers. Use

SECTION 7: Handling and storage

appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
XFp Rot/AA E1	100 tonne	200 tonne

7.3 Specific end use(s)

Recommendations :
- XFp oligomycin A: Industrial applications, Professional applications.
- XFp Bam15: Industrial applications, Professional applications.
- XFp Rot/AA: Industrial applications, Professional applications.

Industrial sector specific solutions :
- XFp oligomycin A: Not available.
- XFp Bam15: Not available.
- XFp Rot/AA: Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
XFp 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	**NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)** OELV: 5 mg/m³ 8 hours.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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

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.

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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

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

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state :	XFp oligomycin A	Solid.
	XFp Bam15	Solid.
	XFp Rot/AA	Solid.
Colour :	XFp oligomycin A	Not available.
	XFp Bam15	Not available.
	XFp Rot/AA	Not available.
Odour :	XFp oligomycin A	Not available.
	XFp Bam15	Not available.
	XFp Rot/AA	Not available.
Odour threshold :	XFp oligomycin A	Not available.
	XFp Bam15	Not available.
	XFp Rot/AA	Not available.
Melting point/freezing point :	XFp oligomycin A	Not available.
	XFp Bam15	Not available.
	XFp Rot/AA	Not available.
Initial boiling point and boiling range :	XFp oligomycin A	Not available.
	XFp Bam15	Not available.
	XFp Rot/AA	Not available.
Flammability :	XFp oligomycin A	Not available.
	XFp Bam15	Not available.
	XFp Rot/AA	Not available.
Upper/lower flammability or explosive limits :	XFp oligomycin A	Not applicable.
	XFp Bam15	Not applicable.
	XFp Rot/AA	Not applicable.

SECTION 9: Physical and chemical properties

Flash point	:	XFp oligomycin A	Not applicable.
		XFp Bam15	Not applicable.
		XFp Rot/AA	Not applicable.
Auto-ignition temperature	:	XFp oligomycin A	Not applicable.
		XFp Bam15	Not applicable.
		XFp Rot/AA	Not applicable.
Decomposition temperature	:	XFp oligomycin A	Not available.
		XFp Bam15	Not available.
		XFp Rot/AA	Not available.
pH	:	XFp oligomycin A	Not available.
		XFp Bam15	Not available.
		XFp Rot/AA	Not available.
Viscosity	:	XFp oligomycin A	Not applicable.
		XFp Bam15	Not applicable.
		XFp Rot/AA	Not applicable.
Solubility(ies)	:	Not available.	
Partition coefficient: n-octanol/water	:	XFp oligomycin A	Not applicable.
		XFp Bam15	Not applicable.
		XFp Rot/AA	Not applicable.
Vapour pressure	:	Not available.	
Evaporation rate	:	XFp oligomycin A	Not available.
		XFp Bam15	Not available.
		XFp Rot/AA	Not available.
Relative density	:	XFp oligomycin A	Not available.
		XFp Bam15	Not available.
		XFp Rot/AA	Not available.
Vapour density	:	XFp oligomycin A	Not applicable.
		XFp Bam15	Not applicable.
		XFp Rot/AA	Not applicable.
Explosive properties	:	XFp oligomycin A	Not available.
		XFp Bam15	Not available.
		XFp Rot/AA	Not available.
Oxidising properties	:	XFp oligomycin A	Not available.
		XFp Bam15	Not available.
		XFp Rot/AA	Not available.
Particle characteristics			
Median particle size	:	XFp oligomycin A	Not available.
		XFp Bam15	Not available.
		XFp Rot/AA	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	XFp oligomycin A	No specific test data related to reactivity available for this product or its ingredients.
		XFp Bam15	No specific test data related to reactivity available for this product or its ingredients.
		XFp Rot/AA	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	XFp oligomycin A	The product is stable.
		XFp Bam15	The product is stable.
		XFp Rot/AA	The product is stable.

SECTION 10: Stability and reactivity

10.3 Possibility of hazardous reactions

XFp oligomycin A	Under normal conditions of storage and use, hazardous reactions will not occur.
XFp Bam15	Under normal conditions of storage and use, hazardous reactions will not occur.
XFp Rot/AA	Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

XFp oligomycin A	No specific data.
XFp Bam15	No specific data.
XFp Rot/AA	No specific data.

10.5 Incompatible materials

XFp oligomycin A	May react or be incompatible with oxidising materials.
XFp Bam15	May react or be incompatible with oxidising materials.
XFp Rot/AA	May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products

XFp oligomycin A	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
XFp Bam15	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
XFp Rot/AA	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
XFp 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	- -

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
XFp 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	28 100	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
XFp 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 %	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

SECTION 11: Toxicological information

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)

Product/ingredient name	Category	Route of exposure	Target organs
XFp 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	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

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

Potential acute health effects

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

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

Ingestion :
XFp oligomycin A — No specific data.
XFp Bam15 — No specific data.
XFp Rot/AA — No specific data.

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

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

SECTION 11: Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General :	XFp oligomycin A	No known significant effects or critical hazards.
	XFp Bam15	No known significant effects or critical hazards.
	XFp Rot/AA	No known significant effects or critical hazards.
Carcinogenicity :	XFp oligomycin A	No known significant effects or critical hazards.
	XFp Bam15	No known significant effects or critical hazards.
	XFp Rot/AA	No known significant effects or critical hazards.
Mutagenicity :	XFp oligomycin A	No known significant effects or critical hazards.
	XFp Bam15	No known significant effects or critical hazards.
	XFp Rot/AA	No known significant effects or critical hazards.
Reproductive toxicity :	XFp oligomycin A	No known significant effects or critical hazards.
	XFp Bam15	No known significant effects or critical hazards.
	XFp Rot/AA	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

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

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
XFp 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

SECTION 12: Ecological information

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN3077	UN3077	UN3077
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Antimycin A)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Antimycin A)	Environmentally hazardous substance, solid, n.o.s. (Antimycin A)
14.3 Transport hazard class(es)	9 	9 	9 
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.

Additional information

Remarks: De minimis quantities

SECTION 14: Transport information

ADR/RID : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Hazard identification number 90
Limited quantity 5 kg
Special provisions 274, 335, 601, 375
Tunnel code (-)

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Emergency schedules F-A, S-F
Special provisions 274, 335, 966, 967, 969

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
Quantity limitation Passenger and Cargo Aircraft: 400 kg. Packaging instructions: 956. Cargo Aircraft Only: 400 kg. Packaging instructions: 956. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y956.
Special provisions A97, A158, A179, A197, A215

14.6 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.

14.7 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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Label :

XFp oligomycin A	Not applicable.
XFp Bam15	Not applicable.
XFp Rot/AA	Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

SECTION 15: Regulatory information

Category
XFp Rot/AA E1

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	**Russian Federation inventory**: Not determined.
Japan	:	**Japan inventory (CSCL)**: Not determined. **Japan inventory (ISHL)**: Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

SECTION 16: Other information

Classification	Justification
XFp Rot/AA	
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

XFp Rot/AA	
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

XFp Rot/AA	
Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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