Conforms to HPR 2015

SAFETY DATA SHEET

Agilent Technologies

Mito-rOCR starter kit

Section 1. Identification

Product identifier : Mito-rOCR starter kit

Part no. (chemical kit) : MO-300-4, MO-400-4

Part no. :

Agilent GOx	103714-100
rOCR Reagent	103704-100
Agilent Rot/AA	103712-100

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

Identified uses : For research use only.

Agilent GOx	4 x 1.1 mg
rOCR Reagent	4 x 210 ug
Agilent Rot/AA	4 x 1.145 mg

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

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

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Note * : **Mito-rOCR Assay Kit MO-300-4**
Mito-rOCR Assay Starter Kit MO-400-4

Section 2. Hazard identification

Classification of the substance or mixture

Agilent GOx
H334 RESPIRATORY SENSITIZATION - Category 1

rOCR Reagent
COMBUSTIBLE DUSTS - Category 1

Agilent Rot/AA
H400 AQUATIC HAZARD (ACUTE) - Category 1
H410 AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements

Hazard pictograms : Agilent GOx

Agilent Rot/AA

Signal word :

Agilent GOx	Danger
rOCR Reagent	Warning
Agilent Rot/AA	Warning

Section 2. Hazard identification

Hazard statements	:	Agilent GOx	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
		rOCR Reagent	May form combustible dust concentrations in air.
		Agilent Rot/AA	H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements			
Prevention	:	Agilent GOx	P284 - Wear respiratory protection. P261 - Avoid breathing dust.
		rOCR Reagent	Not applicable.
		Agilent Rot/AA	P273 - Avoid release to the environment.
Response	:	Agilent GOx	P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
		rOCR Reagent	Not applicable.
		Agilent Rot/AA	P391 - Collect spillage.
Storage	:	Agilent GOx	Not applicable.
		rOCR Reagent	Not applicable.
		Agilent Rot/AA	Not applicable.
Disposal	:	Agilent GOx	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		rOCR Reagent	Not applicable.
		Agilent Rot/AA	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	:	Agilent GOx	None known.
		rOCR Reagent	Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
		Agilent Rot/AA	None known.
Other hazards which do not result in classification	:	Agilent GOx	None known.
		rOCR Reagent	None known.
		Agilent Rot/AA	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Agilent GOx	Substance
		rOCR Reagent	Substance
		Agilent Rot/AA	Mixture

Ingredient name	Synonyms	% (w/w)	CAS number
Agilent GOx			
Oxidase, glucose	Agilent GOx	100	9001-37-0
rOCR Reagent			
Conjugated dye (Proprietary)	Conjugated dye (Proprietary)	100	-
Agilent 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	Rotenone	≥0.1 - ≤1	83-79-4

Section 3. Composition/information on ingredients

[2,3-h]chromen-6-one			

* Non-hazardous ingredients: Conjugated dye (Proprietary)

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 :

Agilent GOx: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

rOCR Reagent: 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.

Agilent 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 :

Agilent GOx: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.

rOCR Reagent: Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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

Skin contact :

Agilent GOx: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

rOCR Reagent: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Agilent 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	:	Agilent GOx	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
		rOCR Reagent	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.
		Agilent 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	:	Agilent GOx	No known significant effects or critical hazards.
		rOCR Reagent	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
		Agilent Rot/AA	No known significant effects or critical hazards.
Inhalation	:	Agilent GOx	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
		rOCR Reagent	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
		Agilent Rot/AA	No known significant effects or critical hazards.
Skin contact	:	Agilent GOx	No known significant effects or critical hazards.
		rOCR Reagent	No known significant effects or critical hazards.
		Agilent Rot/AA	No known significant effects or critical hazards.
Ingestion	:	Agilent GOx	No known significant effects or critical hazards.
		rOCR Reagent	No known significant effects or critical hazards.
		Agilent Rot/AA	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	Agilent GOx	No specific data.
		rOCR Reagent	Adverse symptoms may include the following: irritation redness
		Agilent Rot/AA	No specific data.
Inhalation	:	Agilent GOx	Adverse symptoms may include the following: wheezing and breathing difficulties asthma
		rOCR Reagent	Adverse symptoms may include the following: respiratory tract irritation coughing
		Agilent Rot/AA	No specific data.

Section 4. First-aid measures

Skin contact	:	Agilent GOx	No specific data.
		rOCR Reagent	No specific data.
		Agilent Rot/AA	No specific data.
Ingestion	:	Agilent GOx	No specific data.
		rOCR Reagent	No specific data.
		Agilent Rot/AA	No specific data.

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

Notes to physician	:	Agilent GOx	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		rOCR Reagent	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		Agilent Rot/AA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	Agilent GOx	No specific treatment.
		rOCR Reagent	No specific treatment.
		Agilent Rot/AA	No specific treatment.
Protection of first-aiders	:	Agilent GOx	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
		rOCR Reagent	No action shall be taken involving any personal risk or without suitable training.
		Agilent 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	:	Agilent GOx	Use an extinguishing agent suitable for the surrounding fire.
		rOCR Reagent	Use dry chemical powder.
		Agilent Rot/AA	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	Agilent GOx	None known.
		rOCR Reagent	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
		Agilent Rot/AA	None known.
Specific hazards arising from the chemical	:	Agilent GOx	No specific fire or explosion hazard.
		rOCR Reagent	May form explosible dust-air mixture if dispersed.
		Agilent 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.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

: Agilent GOx — Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

rOCR Reagent — Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
phosphorus oxides
metal oxide/oxides

Agilent Rot/AA — Decomposition products may include the following materials:
halogenated compounds
metal oxide/oxides

Special protective actions for fire-fighters

: Agilent GOx — 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.

rOCR Reagent — 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Agilent 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

: Agilent GOx — Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

rOCR Reagent — Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Agilent 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

: Agilent GOx — 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

rOCR Reagent — 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. Shut off all ignition sources.

Section 6. Accidental release measures

		No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
	Agilent 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 :	Agilent GOx	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".
	rOCR Reagent	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".
	Agilent 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".
Environmental precautions :	Agilent GOx	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).
	rOCR Reagent	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).
	Agilent 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 :	Agilent GOx	Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	rOCR Reagent	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	Agilent 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 :

Agilent GOx

Put on appropriate personal protective equipment (see Section 8). Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.

rOCR Reagent

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Agilent 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 :

Agilent GOx

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.

rOCR Reagent

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.

Agilent 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

Section 7. Handling and storage

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 :

Agilent GOx

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). 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.

rOCR Reagent

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Shelf life: 24 months. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

Agilent 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Agilent 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, 6/2018).** OEL: 5 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 6/2023).** TWA: 5 mg/m³ 8 hours. **CA Ontario Provincial (Canada, 6/2019).** TWA: 5 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

	CA Quebec Provincial (Canada, 6/2022). TWAEV: 5 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 10 mg/m³ 15 minutes. TWA: 5 mg/m³ 8 hours.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Skin protection

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

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

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

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

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state :
Agilent GOx — Solid.
rOCR Reagent — Solid. [lyophilised / Powder.]
Agilent Rot/AA — Solid.

Color :
Agilent GOx — Yellow.
rOCR Reagent — Red.
Agilent Rot/AA — White.

Odor :
Agilent GOx — Not available.
rOCR Reagent — Not available.
Agilent Rot/AA — Odorless.

Odor threshold :
Agilent GOx — Not available.
rOCR Reagent — Not available.
Agilent Rot/AA — Not available.

pH :
Agilent GOx — Not available.
rOCR Reagent — Not available.
Agilent Rot/AA — Not available.

Melting point/freezing point :
Agilent GOx — Not available.
rOCR Reagent — Not available.
Agilent Rot/AA — Not available.

Boiling point, initial boiling point, and boiling range :
Agilent GOx — Not available.
rOCR Reagent — Not available.
Agilent Rot/AA — Not available.

Flash point :
Agilent GOx — Not applicable.
rOCR Reagent — Not applicable.
Agilent Rot/AA — Not applicable.

Evaporation rate :
Agilent GOx — Not available.
rOCR Reagent — Not available.
Agilent Rot/AA — Not available.

Flammability :
Agilent GOx — Not available.
rOCR Reagent — Not available.
Agilent Rot/AA — Not available.

Lower and upper explosion limit/flammability limit :
Agilent GOx — Not applicable.
rOCR Reagent — Not applicable.
Agilent Rot/AA — Not applicable.

Vapor pressure : Not available.

Relative vapor density :
Agilent GOx — Not applicable.
rOCR Reagent — Not applicable.
Agilent Rot/AA — Not applicable.

Relative density :
Agilent GOx — Not available.
rOCR Reagent — Not available.
Agilent Rot/AA — Not available.

Solubility(ies) :

Media	Result
Agilent GOx	
water	Soluble
rOCR Reagent	
water	Soluble
Agilent Rot/AA	
water	Soluble

Section 9. Physical and chemical properties and safety characteristics

Partition coefficient: n-octanol/water	:	Agilent GOx	Not available.
		rOCR Reagent	Not available.
		Agilent Rot/AA	Not applicable.
Auto-ignition temperature	:	Agilent GOx	Not applicable.
		rOCR Reagent	Not applicable.
		Agilent Rot/AA	Not applicable.
Decomposition temperature	:	Agilent GOx	Not available.
		rOCR Reagent	Not available.
		Agilent Rot/AA	Not available.
Viscosity	:	Agilent GOx	Not applicable.
		rOCR Reagent	Not applicable.
		Agilent Rot/AA	Not applicable.
Particle characteristics			
Median particle size	:	Agilent GOx	Not available.
		rOCR Reagent	Not available.
		Agilent Rot/AA	Not available.

Section 10. Stability and reactivity

Reactivity	:	Agilent GOx	No specific test data related to reactivity available for this product or its ingredients.
		rOCR Reagent	No specific test data related to reactivity available for this product or its ingredients.
		Agilent Rot/AA	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Agilent GOx	The product is stable.
		rOCR Reagent	Shelf life: 24 months.
		Agilent Rot/AA	The product is stable.
Possibility of hazardous reactions	:	Agilent GOx	Under normal conditions of storage and use, hazardous reactions will not occur.
		rOCR Reagent	Under normal conditions of storage and use, hazardous reactions will not occur.
		Agilent Rot/AA	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Agilent GOx	No specific data.
		rOCR Reagent	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
		Agilent Rot/AA	No specific data.
Incompatible materials	:	Agilent GOx	May react or be incompatible with oxidizing materials.
		rOCR Reagent	Reactive or incompatible with the following materials: oxidizing materials
		Agilent Rot/AA	May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

Hazardous decomposition products	:	Agilent GOx	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		rOCR Reagent	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		Agilent Rot/AA	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
Agilent GOx				
Oxidase, glucose	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
Agilent Rot/AA				
Antimycin A	LD50 Oral	Rat	28 mg/kg	-
(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	Rat	25 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Agilent 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
Agilent 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)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Agilent 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.

Information on the likely routes of exposure :

Agilent GOx	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
rOCR Reagent	Not available.
Agilent Rot/AA	Not available.

Potential acute health effects

Eye contact :

Agilent GOx	No known significant effects or critical hazards.
rOCR Reagent	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Agilent Rot/AA	No known significant effects or critical hazards.

Inhalation :

Agilent GOx	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
rOCR Reagent	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Agilent Rot/AA	No known significant effects or critical hazards.

Skin contact :

Agilent GOx	No known significant effects or critical hazards.
rOCR Reagent	No known significant effects or critical hazards.
Agilent Rot/AA	No known significant effects or critical hazards.

Ingestion :

Agilent GOx	No known significant effects or critical hazards.
rOCR Reagent	No known significant effects or critical hazards.
Agilent Rot/AA	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact :

Agilent GOx	No specific data.
rOCR Reagent	Adverse symptoms may include the following: irritation redness
Agilent Rot/AA	No specific data.

Inhalation :

Agilent GOx	Adverse symptoms may include the following: wheezing and breathing difficulties asthma
rOCR Reagent	Adverse symptoms may include the following: respiratory tract irritation coughing
Agilent Rot/AA	No specific data.

Skin contact :

Agilent GOx	No specific data.
rOCR Reagent	No specific data.
Agilent Rot/AA	No specific data.

Ingestion :

Agilent GOx	No specific data.
rOCR Reagent	No specific data.
Agilent Rot/AA	No specific data.

Section 11. Toxicological information

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	:	Agilent GOx	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
		rOCR Reagent	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
		Agilent Rot/AA	No known significant effects or critical hazards.
Carcinogenicity	:	Agilent GOx	No known significant effects or critical hazards.
		rOCR Reagent	No known significant effects or critical hazards.
		Agilent Rot/AA	No known significant effects or critical hazards.
Mutagenicity	:	Agilent GOx	No known significant effects or critical hazards.
		rOCR Reagent	No known significant effects or critical hazards.
		Agilent Rot/AA	No known significant effects or critical hazards.
Reproductive toxicity	:	Agilent GOx	No known significant effects or critical hazards.
		rOCR Reagent	No known significant effects or critical hazards.
		Agilent Rot/AA	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Agilent Rot/AA					
Agilent Rot/AA	110285.4	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
Agilent GOx			
Oxidase, glucose	Acute EC50 88.3 mg/l Fresh water	Algae - *Scenedesmus sp.*	72 hours
	Acute EC50 26.2 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
Agilent 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-	Acute EC50 190 µg/l Fresh water	Crustaceans - *Simocephalus serrulatus* - Larvae	48 hours

Section 12. Ecological information

2-isopropenyl-8,9-dimethoxychromeno [3,4-b]furo[2,3-h]chromen-6-one	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 - *Daphnia magna* Fish - *Oncorhynchus mykiss* Daphnia - *Daphnia magna* Fish - *Oncorhynchus mykiss*	48 hours 96 hours 21 days 32 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Agilent GOx Oxidase, glucose	OECD 301E Ready Biodegradability - Modified OECD Screening Test	91 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Agilent GOx Oxidase, glucose	-	-	Readily

Bioaccumulative potential

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

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.

United States : Not determined.

Section 16. Other information

History

Date of issue/Date of revision : 04/15/2024

Date of previous issue : 06/30/2023

Version : 3

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

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Agilent GOx RESPIRATORY SENSITIZATION - Category 1	Expert judgment
rOCR Reagent COMBUSTIBLE DUSTS - Category 1	On basis of test data
Agilent 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

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

Note * : **Mito-rOCR Assay Kit MO-300-4**
Mito-rOCR Assay Starter Kit MO-400-4