

SAFETY DATA SHEET



Kappa- Lambda mRNA CISH (Dako Omnis), Part Number G111700-2

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

1.1 Product identifier

Product name : Kappa- Lambda mRNA CISH (Dako Omnis), Part Number G111700-2
Part No. (Kit) : G111700-2
Part No. : Kappa mRNA CISH (Dako Omnis) G111700-85510
Lambda mRNA CISH (Dako Omnis) G111703-85510

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

Identified uses	
<input checked="" type="checkbox"/> For in vitro diagnostic use	
Kappa mRNA CISH (Dako Omnis)	2.0 ml
Lambda mRNA CISH (Dako Omnis)	2.0 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
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 : Kappa mRNA CISH (Dako Omnis) Mixture
Lambda mRNA CISH (Dako Omnis) Mixture

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

Kappa mRNA CISH (Dako Omnis)

H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Lambda mRNA CISH (Dako Omnis)

H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2










SECTION 2: Hazards identification

Ingredients of unknown toxicity	: Kappa mRNA CISH (Dako Omnis)	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 10 - 30% Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30% Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
	Lambda mRNA CISH (Dako Omnis)	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 10 - 30% Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30% Percentage of the mixture consisting of ingredient(s) of unknown oral 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.

2.2 Label elements

Hazard pictograms	:  Kappa mRNA CISH (Dako Omnis)	
	Lambda mRNA CISH (Dako Omnis)	
Signal word	:  Kappa mRNA CISH (Dako Omnis)	Warning
	Lambda mRNA CISH (Dako Omnis)	Warning
Hazard statements	:  Kappa mRNA CISH (Dako Omnis)	H319 - Causes serious eye irritation.
	Lambda mRNA CISH (Dako Omnis)	H319 - Causes serious eye irritation.
<u>Precautionary statements</u>		
Prevention	:  Kappa mRNA CISH (Dako Omnis)	P280 - Wear eye or face protection.
	Lambda mRNA CISH (Dako Omnis)	P264 - Wash hands thoroughly after handling. P280 - Wear eye or face protection.
Response	:  Kappa mRNA CISH (Dako Omnis)	P264 - Wash hands thoroughly after handling. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Lambda mRNA CISH (Dako Omnis)	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	:  Kappa mRNA CISH (Dako Omnis)	Not applicable.
	Lambda mRNA CISH (Dako Omnis)	Not applicable.
Disposal	:  Kappa mRNA CISH (Dako Omnis)	Not applicable.
	Lambda mRNA CISH (Dako Omnis)	Not applicable.

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SECTION 2: Hazards identification

Hazardous ingredients	: Kappa mRNA CISH (Dako Omnis)	Not applicable.
	: Lambda mRNA CISH (Dako Omnis)	Not applicable.
Supplemental label elements	: Kappa mRNA CISH (Dako Omnis)	Not applicable.
	: Lambda mRNA CISH (Dako Omnis)	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Kappa mRNA CISH (Dako Omnis)	Not applicable.
	: Lambda mRNA CISH (Dako Omnis)	Not applicable.
Special packaging requirements		
Tactile warning of danger	: Kappa mRNA CISH (Dako Omnis)	Not applicable.
	: Lambda mRNA CISH (Dako Omnis)	Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	: Kappa mRNA CISH (Dako Omnis)	None known.
	: Lambda mRNA CISH (Dako Omnis)	None known.

SECTION 3: Composition/information on ingredients

3.1 Substances	: <input checked="" type="checkbox"/> Kappa mRNA CISH (Dako Omnis)	Mixture
	: Lambda mRNA CISH (Dako Omnis)	Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Kappa mRNA CISH (Dako Omnis) ethylene carbonate	EC: 202-510-0 CAS: 96-49-1	≥10 - ≤25	Eye Irrit. 2, H319	[1]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤5	Eye Irrit. 2, H319	[1]
Lambda mRNA CISH (Dako Omnis) ethylene carbonate	EC: 202-510-0 CAS: 96-49-1	≥10 - ≤25	Eye Irrit. 2, H319	[1]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤5	Eye Irrit. 2, H319	[1]
See Section 16 for the full text of the H statements declared above.				

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Date of issue/Date of revision : 10/09/2017

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Kappa mRNA CISH (Dako Omnis)	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.
	: Lambda mRNA CISH (Dako Omnis)	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.
Inhalation	: Kappa mRNA CISH (Dako Omnis)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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.
	: Lambda mRNA CISH (Dako Omnis)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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.
Skin contact	: Kappa mRNA CISH (Dako Omnis)	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.
	: Lambda mRNA CISH (Dako Omnis)	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.
Ingestion	: Kappa mRNA CISH (Dako Omnis)	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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.
	: Lambda mRNA CISH (Dako Omnis)	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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

SECTION 4: First aid measures

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.

Protection of first-aiders	: Kappa mRNA CISH (Dako Omnis)	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	: Lambda mRNA CISH (Dako Omnis)	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: Kappa mRNA CISH (Dako Omnis)	Causes serious eye irritation.
	: Lambda mRNA CISH (Dako Omnis)	Causes serious eye irritation.
Inhalation	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Skin contact	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Ingestion	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Kappa mRNA CISH (Dako Omnis)	Adverse symptoms may include the following: pain or irritation watering redness
	: Lambda mRNA CISH (Dako Omnis)	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Kappa mRNA CISH (Dako Omnis)	No specific data.
	: Lambda mRNA CISH (Dako Omnis)	No specific data.
Skin contact	: Kappa mRNA CISH (Dako Omnis)	No specific data.
	: Lambda mRNA CISH (Dako Omnis)	No specific data.
Ingestion	: Kappa mRNA CISH (Dako Omnis)	No specific data.
	: Lambda mRNA CISH (Dako Omnis)	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

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SECTION 4: First aid measures

Notes to physician	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	No specific treatment. No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	None known. None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	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. 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	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	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. 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

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SECTION 5: Firefighting measures

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	: Kappa mRNA CISH (Dako Omnis)	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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	: Lambda mRNA CISH (Dako Omnis)	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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: Kappa mRNA CISH (Dako Omnis)	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".
	: Lambda mRNA CISH (Dako Omnis)	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

: Kappa mRNA CISH (Dako Omnis)	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).
: Lambda mRNA CISH (Dako Omnis)	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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: Kappa mRNA CISH (Dako Omnis)	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	: Lambda mRNA CISH (Dako Omnis)	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal 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	: Kappa mRNA CISH (Dako Omnis)	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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.
	: Lambda mRNA CISH (Dako Omnis)	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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	: Kappa mRNA CISH (Dako Omnis)	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.
	: Lambda mRNA CISH (Dako Omnis)	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	: Kappa mRNA CISH (Dako Omnis)	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.
	: Lambda mRNA CISH (Dako Omnis)	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.

7.3 Specific end use(s)

Recommendations	: Kappa mRNA CISH (Dako Omnis)	Industrial applications, Professional applications.
	: Lambda mRNA CISH (Dako Omnis)	Industrial applications, Professional applications.
Industrial sector specific solutions	: Kappa mRNA CISH (Dako Omnis)	Not applicable.
	: Lambda mRNA CISH (Dako Omnis)	Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

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: chemical splash goggles.

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.

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SECTION 8: Exposure controls/personal protection

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Kappa mRNA CISH (Dako Omnis)	Liquid.
	: Lambda mRNA CISH (Dako Omnis)	Liquid.
Colour	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Odour	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Odour threshold	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
pH	: Kappa mRNA CISH (Dako Omnis)	6.2
	: Lambda mRNA CISH (Dako Omnis)	6.2
Melting point/freezing point	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Initial boiling point and boiling range	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Flash point	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Evaporation rate	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Flammability (solid, gas)	: Kappa mRNA CISH (Dako Omnis)	Not applicable.
	: Lambda mRNA CISH (Dako Omnis)	Not applicable.
Upper/lower flammability or explosive limits	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Vapour pressure	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.

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SECTION 9: Physical and chemical properties

Vapour density	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Relative density	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Solubility(ies)	: Kappa mRNA CISH (Dako Omnis)	Soluble in the following materials: cold water and hot water.
	: Lambda mRNA CISH (Dako Omnis)	Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Auto-ignition temperature	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Decomposition temperature	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Viscosity	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Explosive properties	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.
Oxidising properties	: Kappa mRNA CISH (Dako Omnis)	Not available.
	: Lambda mRNA CISH (Dako Omnis)	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Kappa mRNA CISH (Dako Omnis)	No specific test data related to reactivity available for this product or its ingredients.
	: Lambda mRNA CISH (Dako Omnis)	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Kappa mRNA CISH (Dako Omnis)	The product is stable.
	: Lambda mRNA CISH (Dako Omnis)	The product is stable.
10.3 Possibility of hazardous reactions	: Kappa mRNA CISH (Dako Omnis)	Under normal conditions of storage and use, hazardous reactions will not occur.
	: Lambda mRNA CISH (Dako Omnis)	Under normal conditions of storage and use, hazardous reactions will not occur.

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SECTION 10: Stability and reactivity

10.4 Conditions to avoid	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	No specific data. No specific data.
10.5 Incompatible materials	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	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

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Kappa mRNA CISH (Dako Omnis) ethylene carbonate Sodium chloride	LD50 Oral	Rat	10 g/kg	-
	LD50 Oral	Rat	3000 mg/kg	-
Lambda mRNA CISH (Dako Omnis) ethylene carbonate Sodium chloride	LD50 Oral	Rat	10 g/kg	-
	LD50 Oral	Rat	3000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Kappa mRNA CISH (Dako Omnis) ethylene carbonate Sodium chloride	Skin - Mild irritant	Rabbit	-	660 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Lambda mRNA CISH (Dako Omnis) ethylene carbonate Sodium chloride	Skin - Mild irritant	Rabbit	-	660 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitiser

Conclusion/Summary	: Not available.	
Information on likely routes of exposure	: Kappa mRNA CISH (Dako Omnis) Lambda mRNA CISH (Dako Omnis)	Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Date of issue/Date of revision : 10/09/2017

12/17

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Inhalation	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Ingestion	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Skin contact	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Eye contact	: Kappa mRNA CISH (Dako Omnis)	Causes serious eye irritation.
	: Lambda mRNA CISH (Dako Omnis)	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: Kappa mRNA CISH (Dako Omnis)	No specific data.
	: Lambda mRNA CISH (Dako Omnis)	No specific data.
Ingestion	: Kappa mRNA CISH (Dako Omnis)	No specific data.
	: Lambda mRNA CISH (Dako Omnis)	No specific data.
Skin contact	: Kappa mRNA CISH (Dako Omnis)	No specific data.
	: Lambda mRNA CISH (Dako Omnis)	No specific data.
Eye contact	: Kappa mRNA CISH (Dako Omnis)	Adverse symptoms may include the following: pain or irritation watering redness
	: Lambda mRNA CISH (Dako Omnis)	Adverse symptoms may include the following: pain or irritation watering redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.

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SECTION 11: Toxicological information

Carcinogenicity	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Mutagenicity	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Teratogenicity	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Developmental effects	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
Fertility effects	: Kappa mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.
	: Lambda mRNA CISH (Dako Omnis)	No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Kappa mRNA CISH (Dako Omnis) ethylene carbonate Sodium chloride	Acute LC50 53000 mg/l Fresh water	Fish - Fry	96 hours
	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1.56 g/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
Lambda mRNA CISH (Dako Omnis) ethylene carbonate Sodium chloride	Acute LC50 53000 mg/l Fresh water	Fish - Fry	96 hours
	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1.56 g/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

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SECTION 12: Ecological information

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Kappa mRNA CISH (Dako Omnis) ethylene carbonate	0.11	-	low
Lambda mRNA CISH (Dako Omnis) ethylene carbonate	0.11	-	low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 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 : Not regulated.

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.

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SECTION 14: Transport information

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : 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 : Kappa mRNA CISH (Dako Omnis) Not applicable.
Lambda mRNA CISH (Dako Omnis) Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): All components are listed or exempted.
Malaysia : Not determined.
New Zealand : All components are listed or exempted.
Philippines : Not determined.
Republic of Korea : Not determined.

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SECTION 15: Regulatory information

Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
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]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

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

Classification	Justification
Kappa mRNA CISH (Dako Omnis) Eye Irrit. 2, H319	Calculation method
Lambda mRNA CISH (Dako Omnis) Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H statements

Kappa mRNA CISH (Dako Omnis) H319	Causes serious eye irritation.
Lambda mRNA CISH (Dako Omnis) H319	Causes serious eye irritation.

Full text of classifications [CLP/GHS]

Kappa mRNA CISH (Dako Omnis) Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Lambda mRNA CISH (Dako Omnis) Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

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