SAFETY DATA SHEET



ARIES® HSV 1&2 Assay, ARIES® C. difficile Assay, ARIES® Flu A/B and RSV Assay, ARIES® GBS Assay, ARIES® Norovirus Assay, ARIES® Bordetella Assay, ARIES® MRSA Assay, ARIES® Group A Strep Assay, ARIES® SARS-CoV-2 Assay (24) Cassettes, ARIES® Flu A/B & RSV+SARS-CoV-2 Assay

Section 1. Identification

Product identifier : ARIES® HSV 1&2 Assay, ARIES® C. difficile Assay, ARIES® Flu A/B and RSV Assay,

ARIES® GBS Assay, ARIES® Norovirus Assay, ARIES® Bordetella Assay, ARIES® MRSA Assay, ARIES® Group A Strep Assay, ARIES® SARS-CoV-2 Assay (24)

Cassettes, ARIES® Flu A/B & RSV+SARS-CoV-2 Assay

Product code :

Other means of

identification

: Liquid.

: Not available.

Product type Identified uses

: For Professional use only. Use as per Product Insert.

Supplier's details

: Luminex Corporation 12212 Technology Blvd Austin, Texas 78727 Tel: 1-512-381-4397

Toll free: 1-877-785-2323 (US and Canada)

Fax: 1-512-219-5114 http://www.luminexcorp.com : Support@Luminexcorp.com

e-mail address of person responsible for this SDS

Emergency telephone number (with hours of

operation)

: 1-512-381-4397

24/7

Section 2. Hazards identification

Classification of the substance or mixture

: Plug 1 Not classified.

Plug 2 FLAMMABLE LIQUIDS - Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION -

Category 2A

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) -

Category 3

Plug 3 FLAMMABLE LIQUIDS - Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION -

Category 2A

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) -

Category 3

Plug 4 ACUTE TOXICITY (oral) - Category 4
Wash 1 FLAMMABLE LIQUIDS - Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION -

Category 2A

Section 2. Hazards identification

SPECIFIC TARGET ORGAN TOXICITY -SINGLE EXPOSURE (Narcotic effects) -

Category 3 Not classified. Wash 2 **Elution** Not classified. Not classified. **PCR Tube**

GHS label elements, including precautionary statements

Hazard pictograms

Signal word : Danger

The hazards in this SDS are present, but given the extremely small quantities

in this product, the hazards may be less severe.

Hazard statements

: H225 - Highly flammable liquid and vapour.

Precautionary statements

Prevention : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P241 - Use explosion-proof electrical, ventilating or lighting equipment.

P242 - Use non-sparking tools.

P243 - Take action to prevent static discharges.

P233 - Keep container tightly closed.

Response : Not applicable.

: P403 + P235 - Store in a well-ventilated place. Keep cool. Storage

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Other hazards which do not : None known.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture : Mixture Other means of Not available.

identification

Ingredient name	%	CAS number
Plug 2 Isopropyl alcohol	≥90	67-63-0
Plug 3 Isopropyl alcohol	80 - 100	67-63-0
Plug 4 Guanidinium thiocyanate Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-	≥50 - <55 ≥3 - ≤5	593-84-0 9002-93-1
Wash 1 Isopropyl alcohol Guanidinium thiocyanate	≥25 - ≤50 ≥5 - ≤10	67-63-0 593-84-0

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Not applicable.Inhalation: Not applicable.Skin contact: Not applicable.Ingestion: Not applicable.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Plug 1 No known significant effects or critical hazards.

Plug 2 Causes serious eye irritation.
Plug 3 Causes serious eye irritation.

Plug 4 No known significant effects or critical hazards.

Wash 1 Causes serious eye irritation.

Wash 2 No known significant effects or critical hazards.

Elution No known significant effects or critical hazards.

PCR Tube No known significant effects or critical hazards.

Inhalation : Plug 1 No known significant effects or critical hazards.

Plug 2 Can cause central nervous system (CNS)

depression. May cause drowsiness or dizziness.

Plug 3 Can cause central nervous system (CNS)

depression. May cause drowsiness or dizziness.

Plug 4 No known significant effects or critical hazards.

Wash 1 Can cause central nervous system (CNS)

depression. May cause drowsiness or dizziness.

Wash 2 No known significant effects or critical hazards.

Elution No known significant effects or critical hazards.

PCR Tube No known significant effects or critical hazards.

Skin contact : Plug 1 No known significant effects or critical hazards.

Plug 2
No known significant effects or critical hazards.
Plug 3
No known significant effects or critical hazards.
Plug 4
No known significant effects or critical hazards.
Wash 1
No known significant effects or critical hazards.
Wash 2
No known significant effects or critical hazards.
Wash 2
No known significant effects or critical hazards.
PCR Tube
No known significant effects or critical hazards.
No known significant effects or critical hazards.

: Plug 1 No known significant effects or critical hazards.

Plug 2 Can cause central nervous system (CNS)

depression.

Plug 3 Can cause central nervous system (CNS)

depression.

Plug 4 Harmful if swallowed.

Wash 1 Can cause central nervous system (CNS)

depression.

Wash 2 No known significant effects or critical hazards. Elution No known significant effects or critical hazards.

Ingestion

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Section 4. First aid measures

PCR Tube

No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 Ingestion
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

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

Notes to physician : None identified.

Specific treatments : No specific treatment.

Protection of first-aiders : No special measures required.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

: Highly flammable liquid and vapour.

 Decomposition products may include the following materials: carbon dioxide

carbon monoxide nitrogen oxides sulfur oxides

Special protective actions for fire-fighters

Special protective equipment for fire-fighters

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

: 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

: Put on appropriate personal protective equipment.

For emergency responders: 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".

Environmental precautions: No special requirements.

Methods and material for containment and cleaning up



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Section 6. Accidental release measures

Spill

: Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Advice on general occupational hygiene

: Put on appropriate personal protective equipment (see Section 8).

: 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. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Please store at 15°C to 30°C upon receipt.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Plug 2 Isopropyl alcohol	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 400 ppm 8 hours. PEL (long term): 983 mg/m³ 8 hours. PEL (short term): 1230 mg/m³ 15 minutes. PEL (short term): 500 ppm 15 minutes.
Plug 3 Isopropyl alcohol	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 400 ppm 8 hours. PEL (long term): 983 mg/m³ 8 hours. PEL (short term): 1230 mg/m³ 15 minutes. PEL (short term): 500 ppm 15 minutes.
Wash 1 Isopropyl alcohol	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 400 ppm 8 hours. PEL (long term): 983 mg/m³ 8 hours. PEL (short term): 1230 mg/m³ 15 minutes. PEL (short term): 500 ppm 15 minutes.

Appropriate engineering

controls

: No special ventilation requirements.

Environmental exposure

controls

: No special measures required.

Individual protection measures

Hygiene measures : Follow good industrial hygiene practice.

Eye/face protection : Not required under normal conditions of use.

Skin protection

Hand protection : Not required under normal conditions of use.Body protection : Not required under normal conditions of use.



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Section 8. Exposure controls/personal protection

Other skin protection : Not required under normal conditions of use.

Respiratory protection : Not required under normal conditions of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Plug 1 Liquid.

Plug 2 Liquid.
Plug 3 Liquid.
Plug 4 Liquid.
Wash 1 Liquid.
Wash 2 Liquid.
Elution Liquid.

PCR Tube Solid. [Lyophilized pellet.]

Colour : Plua 1 Colourless.

: Plug 1 Colourless. Colourless. Plug 2 Colourless. Plug 3 Plug 4 Colourless. Wash 1 Colourless. Wash 2 Colourless. Elution Colourless. **PCR Tube** White.

Odour : Plug 1 Odourless.

Plug 2
Odourless.
Plug 3
Odourless.
Plug 4
Odourless.
Wash 1
Odourless.
Wash 2
Odourless.
Elution
Odourless.
PCR Tube
Odourless.
Not available.

Odour threshold : Not available.

pH : Plug 1 Not available.

Plug 2
 Not available.
Plug 3
 Not available.
Plug 4
 Not available.
Wash 1
 Not available.
Wash 2
 Not available.
PCR Tube

Melting point : Not available.

Boiling point : Not available.

Flash point : Plug 1 Not available.

Plug 2 Closed cup: 11.7°C (53.1°F)
Plug 3 Closed cup: 11.7°C (53.1°F)

Plug 4 Not available.

Wash 1 Closed cup: 21°C (69.8°F)

Wash 2 Not available.
Elution Not available.
PCR Tube Not available.

Section 9. Physical and chemical properties

PCR Tube Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive : Not available.

(flammable) limits

Vapour pressure: Not available.Vapour density: Not available.

Relative density: Not available.

Plug 1

Plug 2

Not available.

Not available.

Plug 3 Not available.
Plug 4 Not available.
Wash 1 Not available.
Wash 2 Not available.
Elution Not available.
PCR Tube Not available.

Solubility: Not available.Solubility in water: Not available.Partition coefficient: n-: Not available.

octanol/water

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials: oxidising materials and

moisture.

Hazardous decomposition

products SADT : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

: Not available.



Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Plug 2	LD50 Dermal	Rabbit	12800 mg/kg	-
Isopropyl alcohol	LD50 Oral	Rat	5000 mg/kg	
Plug 3	LD50 Dermal	Rabbit	12800 mg/kg	-
Isopropyl alcohol	LD50 Oral	Rat	5000 mg/kg	
Plug 4 Poly(oxy-1,2-ethanediyl), α- [4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-	LD50 Oral	Rat	1800 mg/kg	-
Wash 1	LD50 Dermal	Rabbit	12800 mg/kg	-
Isopropyl alcohol	LD50 Oral	Rat	5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Plug 2					
Isopropyl alcohol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Plug 3					
Isopropyl alcohol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	_
' ',	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Plug 4					
Poly(oxy-1,2-ethanediyl), α- [4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-	Eyes - Moderate irritant	Rabbit	-	24 hours 10 μL	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 μL	-
Wash 1					
Isopropyl alcohol	Eyes - Moderate irritant	Rabbit	[-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Severe irritant	Rabbit	[-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

Sensitisation

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)



Section 11. Toxicological information

Name	Category	Target organs
Plug 2 Isopropyl alcohol	Category 3	Narcotic effects
Plug 3 Isopropyl alcohol	Category 3	Narcotic effects
Wash 1 Isopropyl alcohol	Category 3	Narcotic effects

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on likely routes

of exposure

: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health e	effects	
Eye contact	: Plug 1	No known significant effects or critical hazards.
	Plug 2	Causes serious eye irritation.
	Plug 3	Causes serious eye irritation.
	Plug 4	No known significant effects or critical hazards.
	Wash 1	Causes serious eye irritation.
	Wash 2	No known significant effects or critical hazards.
	Elution	No known significant effects or critical hazards.
	PCR Tube	No known significant effects or critical hazards.
Inhalation	: Plug 1	No known significant effects or critical hazards.
	Plug 2	Can cause central nervous system (CNS)
		depression. May cause drowsiness or dizziness.
	Plug 3	Can cause central nervous system (CNS)
		depression. May cause drowsiness or dizziness.
	Plug 4	No known significant effects or critical hazards.
	Wash 1	Can cause central nervous system (CNS)
		depression. May cause drowsiness or dizziness.
	Wash 2	No known significant effects or critical hazards.
	Elution	No known significant effects or critical hazards.
	PCR Tube	No known significant effects or critical hazards.
Skin contact	: Plug 1	No known significant effects or critical hazards.
	Plug 2	No known significant effects or critical hazards.
	Plug 3	No known significant effects or critical hazards.
	Plug 4	No known significant effects or critical hazards.
	Wash 1	No known significant effects or critical hazards.
	Wash 2	No known significant effects or critical hazards.
	Elution	No known significant effects or critical hazards.
	PCR Tube	No known significant effects or critical hazards.
Ingestion	: Plug 1	No known significant effects or critical hazards.
	Plug 2	Can cause central nervous system (CNS)
		depression.
	Plug 3	Can cause central nervous system (CNS)
		depression.
	Plug 4	Harmful if swallowed.
	Wash 1	Can cause central nervous system (CNS)
		depression.

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No known significant effects or critical hazards.

Wash 2

Section 11. Toxicological information

Elution No known significant effects or critical hazards. **PCR Tube** No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

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

Short term exposure

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects: No known significant effects or critical hazards.

Long term exposure

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

Document No. :

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Dermal	924.4 mg/kg 2067.67 mg/kg 20.68 mg/L
Wash 1 Oral Dermal Inhalation (vapours)	7692.31 mg/kg 16923.08 mg/kg 169.23 mg/L

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Plug 2			
Isopropyl alcohol	Acute EC50 7550 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1400000 µg/L Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/L Fresh water	Fish - Rasbora heteromorpha	96 hours
Plug 3			
Isopropyl alcohol	Acute EC50 7550 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1400000 µg/L Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/L Fresh water	Fish - Rasbora heteromorpha	96 hours
Plug 4			
Poly(oxy-1,2-ethanediyl), α-	Acute LC50 5.85 mg/L Fresh water	Crustaceans - Ceriodaphnia rigaudi -	48 hours
$[4-(1,1,3,3-tetramethylbutyl)phenyl]-\omega-hydroxy-$		Neonate	
	Acute LC50 11.2 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4500 µg/L Fresh water	Fish - Pimephales promelas	96 hours
		· · ·	
Wash 1			
Isopropyl alcohol	Acute EC50 7550 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1400000 µg/L Marine water Acute LC50 4200 mg/L Fresh water	Crustaceans - Crangon crangon Fish - Rasbora heteromorpha	48 hours 96 hours
	Acute LC30 4200 mg/L Fresh water	risii - Nasbora neteromorpha	90 Hours

Persistence/degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Plug 2 Isopropyl alcohol	0.05	-	low
Plug 3 Isopropyl alcohol	0.05	-	low
Wash 1 Isopropyl alcohol	0.05	-	low

Mobility in soil

Soil/water partition coefficient (Koc)

: There is no data available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimised wherever possible. No specific disposal consideration.

Section 14. Transport information

	UN	IMDG	IATA
UN number	UN1219	UN1219	UN1219
UN proper shipping name	ISOPROPYL ALCOHOL solution	ISOPROPYL ALCOHOL solution	ISOPROPYL ALCOHOL solution
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.

Additional information

UN : Remarks

Limited Quantity Exemption

: Emergency schedules F-A, S-P **IMDG**

Remarks Limited Quantity Exemption : Remarks Limited Quantity Exemption

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.

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

IATA

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Plug 2 FLAMMABLE LIQUIDS - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2/ SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method
Plug 3 FLAMMABLE LIQUIDS - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2/ SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method
Plug 4 ACUTE TOXICITY (oral) - Category 4	Calculation method



Section 16. Other information

Wash 1

FLAMMABLE LIQUIDS - Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

SPECIFIC TARGET ORGAN TOXICITY - SINGLE

EXPOSURE (Narcotic effects) - Category 3

On basis of test data Calculation method Calculation method

History

Date of issue : 2021/01/30 Date of previous issue : 2020/05/15

Version : 3

Prepared by : KMK Regulatory Services Inc.

Key to abbreviations: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor

GHS = Globally Harmonised System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the

Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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