

Solus Listeria monocytogenes ELISA 1 and 5 plate assay (LISM-0096 & LISM-0480)

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 10/9/2019 Version: 2.0

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

1.1. Product identifier

: Mixture Product form

Product name : Solus Listeria monocytogenes ELISA 1 and 5 plate assay

Product code : LISM-0096 & LISM-0480 Type of product : Multi-constituent

Product group : Blend

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

1.2.1. Relevant identified uses

: Laboratory use,Industrial use,Professional use Main use category

Industrial/Professional use spec : For professional use only Use of the substance/mixture : For analytical purposes

Scientific research and development

Not for human consumption or veterinary purposes.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Solus Scientific Solutions Unit 9, Mansfield Network Centre Millenium Business Park, Concorde Way NG19 7JZ Mansfield T +44 (0) 1623 429701

Solus.info@perkinelmer.com : +44 (0) 1623 429701 Emergency number

1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Not classified.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable 3.2. Mixtures

Comments

: Kit contains several component parts. These parts are manufactured using various products not classified as hazardous according to EC regulations, 1272/2008, EC Directives 67548/EEC, 1999/45/EC and OSHA Hazard communication standard 29CFR 1910-120

Where a component part uses products that are classified as hazardous according to EC regulations, 1272/2008 EC Directives 67548/45/EC and OSHA Hazard communications standard 29CFR 1910-120, they are listed below:

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tetramethylbenzidine	(CAS-No.) 54827-17-7 (EC-No.) 259-364-6	< 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Brain heart infusion broth media (in house)	(CAS-No.) N/A (EC-No.) N/A	< 2	Not classified
Foetal Calf Serum		< 2	Not classified

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Trisma Base	(CAS-No.) 77-86-1 (EC-No.) 201-064-4	< 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Hydrochloric acid 37% Ultrapure	(CAS-No.) 7647-01-0 (EC-No.) 231-595-7 (EC Index-No.) 017-002-01-X	< 1	Skin Corr. 1B, H314 STOT SE 3, H335
ProClin 300	(CAS-No.) N/A (EC-No.) N/A	<1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:vapour), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1C, H314 Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Bovine Serum Albumin	(CAS-No.) 9048-46-8 (EC-No.) 232-936-2	< 1	STOT SE 3, H335
ProClin 950	(CAS-No.) N/A (EC-No.) N/A	< 0.01	Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1C, H314 Skin Sens. 1B, H317 Aquatic Acute 1, H400
Sterile anti-foam solution	(CAS-No.) N/A (EC-No.) N/A	< 0.01	Eye Irrit. 2, H319
Heat killed E.Coli NCTC11560 in brain heart infusion broth	(CAS-No.) N/A (EC-No.) N/A	< 0.01	Not classified
Listeria polyclonal antibodies		< 0.01	Not classified
Bovine gamma globulins	(CAS-No.) 9007-83-4 (EC-No.) 232-706-1	< 0.01	Not classified
Sodium hydroxide 10M solution aqueous solution	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5	< 0.01	Skin Corr. 1, H314
Heat killed Listeria monocytogenes ATCC19111 in brain heart infusion broth	(CAS-No.) N/A (EC-No.) N/A	< 0.01	Not classified
Specific concentration limits:			
Name	Product identifier	Specific o	concentration limits
Hydrochloric acid 37% Ultrapure	(CAS-No.) 7647-01-0 (EC-No.) 231-595-7 (EC Index-No.) 017-002-01-X	(10 = <c <<br="">(C >= 10) S</c>	25) Skin Irrit. 2, H315 25) Eye Irrit. 2, H319 STOT SE 3, H335 Skin Corr. 1B, H314

Full text of H-statements: see section 16

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5	ECII	ON	4:	FIRST	i ald	measures

4.1.	Description	on of first	aid measures	

First-aid measures general

: If possible show this sheet, if not available show packaging or label. Never give anything by mouth to an unconscious person. Do not leave affected person unattended.

First-aid measures after inhalation

: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. If breathing difficulties persist: Get medical advice/attention.

First-aid measures after skin contact

: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Do not remove clothing if it sticks to the skin. If irritation persists, consult a doctor.

First-aid measures after eye contact

: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion

: Rinse mouth out with water. Do not induce vomiting. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects

: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation

: Vapour/ mist from product, if present, may cause irritation after an excessive inhalation

Symptoms/effects after skin contact

: Vapour may cause irritation to skin after excessive exposure.

Symptoms/effects after eye contact

: May cause eye irritation. redness, itching, tears.

Symptoms/effects after ingestion

: May cause irritation to the digestive tract. Abdominal pain, nausea.

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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media Suitable extinguishing media

uitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Keep container tightly closed and away from heat, sparks and flame. Keep away from

combustible materials.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Warn all persons of toxic hazard.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk. Do not breathe gas, fumes, vapour

or spray. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Evacuate unnecessary personnel. Mark out the contaminated area with signs and prevent

access to unauthorized personnel. Do not touch or walk on the spilled product. Avoid

contact with skin, eyes and clothing.

Measures in case of dust release : Shelter from vapours by keeping upwind. Ventilate the area thoroughly, especially low lying

areas (basements, workpits etc).

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Use self-contained breathing apparatus and

chemically protective clothing.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Contain the spilled material by bunding.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

Try to stop release if without risk.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid formation of vapours. Provide local exhaust or general room ventilation.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when

leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ensure adequate ventilation, especially in confined areas.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat

sources, Direct sunlight. Keep container closed when not in use. Light sensitive.

Incompatible products : Strong oxidizing agents.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. Light sensitive.

Storage temperature : 2 - 8 °C

Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

Information on mixed storage : Animal wastes presenting risk of contamination (e. g. tissue waste, waste containing blood,

secretions and excretions, blood bags, contaminated animal carcasses).

Storage area : Store in a dark area. Store in a dry place. Store in a closed container.

7.3. Specific end use(s)

For analytical purposes. Scientific research and development. Not for human consumption. Pc21 Laboratory chemicals

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SECTION 8: Exposure controls/personal protection

3.1. Control parameters

b.1. Control parameters		
Hydrochloric acid 37% Ultrapure (7647-01-0)		
United Kingdom	Local name	Hydrogen chloride
United Kingdom	WEL TWA (mg/m³)	2 mg/m³ gas and aerosol mists
United Kingdom	WEL TWA (ppm)	1 ppm gas and aerosol mists
United Kingdom	WEL STEL (mg/m³)	8 mg/m³ gas and aerosol mists
United Kingdom	WEL STEL (ppm)	5 ppm gas and aerosol mists
United Kingdom Regulatory reference EH40/2005 (Third edition, 2018). HSE		

8.2. Exposure controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety procedures. Floors should be impervious, resistant to liquids and easy to clean.

Personal protective equipment:

Avoid all unnecessary exposure.

Materials for protective clothing:

Wear suitable protective clothing, gloves and eye/face protection

Hand protection:

The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.11		EN 374

Eye protection:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Use eye protection according to EN 166, designed to protect against liquid splashes.

Туре	Use	Characteristics	Standard
Safety glasses	Droplet, vapours	With side shields	EN 166

Skin and body protection:

Emergency safety showers should be available in the immediate vicinity of any potential exposure. Keep suitable chemically resistant protective clothing readily available for emergency use

Туре	Standard
Long sleeved protective clothing	EN 14605

Respiratory protection:

No respiratory protection needed under normal use conditions. [In case of inadequate ventilation] wear respiratory protection.

Device	Filter type	Condition	Standard
Air-Purifying Respirator (APR), reusable	ABEK	Moist condition, Mist formation, Protection for Liquid particles, Vapour protection	EN 14387

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state : Liquid

Appearance : Kit consists of microwell plate(s) and various liquid solutions.

Colour : No data available
Odour : No data available.
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available

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: No data available
: No data available
: No data available
: No data available
: Non flammable.
: No data available

9.2. Other information

Kit consists of microwell plate(s) and various liquid solutions

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Light sensitive.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. Thermal decomposition generates: Toxic fumes.

SECTION 11: Toxicological information

11.1. Illiorination on toxicological effects	
Acute toxicity (oral)	: Not classified
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Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Trisma Base (77-86-1)	
LD50 oral rat 5900 mg/kg	
LD50 dermal	> 5000 mg/kg

ProClin 300 (N/A)		
LD50 oral rat	862 mg/kg	
LD50 dermal rabbit	2800 mg/kg	
Skin corrosion/irritation :	Not classified	
Additional information :	Based on available data, the classification criteria are not met	
Serious eye damage/irritation :	Not classified	
Additional information :	Based on available data, the classification criteria are not met	
Respiratory or skin sensitisation :	Not classified	
Additional information :	Based on available data, the classification criteria are not met	
Germ cell mutagenicity :	Not classified	
Additional information :	Based on available data, the classification criteria are not met	
Carcinogenicity :	Not classified	
Additional information :	Based on available data, the classification criteria are not met	
Reproductive toxicity :	Not classified	
Additional information :	Based on available data, the classification criteria are not met	
STOT-single exposure :	Not classified	
Additional information :	Based on available data, the classification criteria are not met	

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STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

Potential adverse human health effects and : Based on available data, the classification criteria are not met.

symptoms

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified Chronic aquatic toxicity : Not classified

Trisma Base (77-86-1)

EC50 Daphnia 1 > 980 mg/l 48h - Daphnia (water flea)

EC50 72h algae (1) 397 mg/l

12.2. Persistence and degradability

Listeria monocytogenes 1 and 5 plate assay

Persistence and degradability No data available.

Trisma Base (77-86-1)

Persistence and degradability Readily biodegradable.

Hydrochloric acid 37% Ultrapure (7647-01-0)

Persistence and degradability

No data available.

ProClin 950 (N/A)

Persistence and degradability No data available.

ProClin 300 (N/A)

Persistence and degradability No data available.

Sterile anti-foam solution (N/A)

Persistence and degradability

No data available.

Tetramethylbenzidine (54827-17-7)

Persistence and degradability No data available.

Bovine gamma globulins (9007-83-4)

Persistence and degradability

No data available.

Brain heart infusion broth media (in house) (N/A)

Persistence and degradability No data available.

Heat killed E.Coli NCTC11560 in brain heart infusion broth (N/A)

Persistence and degradability

No data available.

Listeria polyclonal antibodies

Persistence and degradability No data available.

Sodium hydroxide 10M solution aqueous solution (1310-73-2)

Persistence and degradability No data available.

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Bovine Serum Albumin (9048-46-8)	
Persistence and degradability	No data available.

Heat killed Listeria monocytogenes ATCC19111 in brain heart infusion broth (N/A)	
Persistence and degradability	No data available.
12.3. Bioaccumulative potential Listeria monocytogenes 1 and 5 plate assay	

Trisma Base (77-86-1)	
Log Pow	-2.31
Bioaccumulative potential	Not potentially bioaccumulable.

Hydrochloric acid 37% Ultrapure (7647-01-0)	
Bioaccumulative potential	No data available.

ProClin 950 (N/A)	n 950 (N/A)	
Bioaccumulative potential	No data available.	

ProClin 300 (N/A)	
Bioaccumulative potential	No data available.

Sterile anti-foam solution (N/A)	
Bioaccumulative potential	No data available.

Tetramethylbenzidine (54827-17-7)		
	Bioaccumulative potential	No data available.

Bovine gamma globulins (9007-83-4)		
	Bioaccumulative potential	No data available.

Brain heart infusion broth media (in house) (N/A)		VA)
	Bioaccumulative potential	No data available.

Heat killed E.Coli NCTC11560 in brain heart infusion broth (N/A)		
	Bioaccumulative notential	No data available

Listeria polyclonal antibodies	
Bioaccumulative potential	No data available.

Sodium hydroxide 10M solution aqueous solution (1310-73-2)	
Bioaccumulative potential	No data available.

Bovine Serum Albumin (9048-46-8)	
Bioaccumulative potential	No data available.

Heat killed Listeria monocytogenes ATCC19111 in brain heart infusion broth (N/A)	
Bioaccumulative potential	No data available.

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12.4.		

Trisma E	Base (77-86	3-1)
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Ecology - soil Expected to be highly mobile in soil.

12.5. Results of PBT and vPvB assessment

Listeria monocytogenes 1 and 5 plate assay

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component	
Trisma Base (77-86-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Hydrochloric acid 37% Ultrapure (7647-01-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
ProClin 300 (N/A)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Tetramethylbenzidine (54827-17-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Brain heart infusion broth media (in house) (N/A)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Bovine Serum Albumin (9048-46-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations

Additional information

Ecology - waste materials

- : Dispose in a safe manner in accordance with local/national regulations.
- : Animal wastes presenting risk of contamination (e. g. tissue waste, waste containing blood, secretions and excretions, blood bags, contaminated animal carcasses).

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID	
14.1. UN number	14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.2. UN proper shipping name					
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.3. Transport hazard	14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.4. Packing group					
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
14.5. Environmental hazards					
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated	
No supplementary information available					
14.6 Special precautions for user					

14.6. Special precautions for use

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

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Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 Data sources

December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information: : This SDS has been produced by Molekula Ltd.

: Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from

handling or from contact with the above product.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.