Safety Data Sheet

Human HSPA5 ELISA Kit

Cat#: orb776803

Creation Date: July 23, 2018
Revision Date: July 23, 2018

1. IDENTIFICATION

1.1 GHS Product identifier

Product name: Human HSPA5 ELISA Kit

Catalog No.: orb776803

1.2 Recommended use of the chemical and restrictions on use

Identified uses: For research use only

Uses advised against: no data available

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Not classified.

2.2 GHS Label elements, including precautionary statements

Pictogram(s): No symbol.

Signal word: No signal word

Hazard statement(s): none

Precautionary statement(s):

Prevention: none

Response: none

Storage: none

Disposal: none

2.3 Other hazards which do not result in classification

no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name	Common names and synonyms	CASnumber	ECnumber	Concentration
Water	Water	7732-18-5	231-791-2	78. 39%
Sodium chloride	Sodium chloride	7647-14-5	231-598-3	14. 16%
Sucrose	Sucrose	57-50-1	200-334-9	2. 28%
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2- diol, ethoxylated	Poly (ethylene glycol) - 4000	25322-68-3	500-038-2	1. 33%
Potassium sodium tartrate tetrahydrate	Potassium sodium tartrate tetrahydrate	6381-59-5	613-385-0	1. 07%
Potassium chloride	Potassium chloride	7447-40-7	231-211-8	0.81%
Disodium phosphate dodecahydrate	Disodium hydrogen phosphate	10039-32-4	600-088-6	0. 63%
Glycerol	Glycerol	56-81-5	200-289-5	0. 51%
Trisodium citrate	Sodium citrate	68-04-2	200-675-3	0. 42%
Polyvinyl pyrrolidone	PVP40	9003-39-8	618-363-4	0. 35%
Potassium dihydrogen orthophosphate	Potassium dihydrogen phosphate	7778-77-0	231-913-4	0. 05%

4. FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

General advice

Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms/effects, acute and delayed

no data available

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

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling in a well-ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Component	Sodium chloride			
CAS No.	7647-14-5			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m3	ppm	mg/m3
Latvia		5		
	Remarks			

Component	Sucrose			
CAS No.	57-50-1			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m3	ppm	mg/m3

Component	Sucrose			
CAS No.	57-50-1			
Australia		10 (1)		
Belgium		10		
Canada - Ontario		10		
Canada - Québec		10		
France		10		
Ireland		10		20 (1)
New Zealand		10 (1)		
Singapore		10		
South Korea		10		
Spain		10		
USA - NIOSH		10 total dusts		
		5 respirable fractions		
USA - OSHA		15 inhalable aerosols		
		5 respirable aerosols		
United Kingdom		10		20
	Remarks			
Australia	(1) This value is for inhalable dust containing no asbestos and			
Ireland	(1) 15 minutes reference period			
New Zealand	(1) The value for inhalable dust containing no asbestos and less than 1% free silica.			

Component	Potassium chloride			
CAS No.	7447-40-7			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m3	ppm	mg/m3
Latvia		5		
	Remarks			

Component	Glycerol			
CAS No.	56-81-5			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m3	ppm	mg/m3
Australia		10 (1)		
Belgium		10		
Canada - Ontario		10		
Canada - Québec		10		
Finland		20		
France		10		
Germany (AGS)		200 (1)		400 (1)(2)
Germany (DFG)		200 (1)		400 (1)(2)
Ireland		10		
New Zealand		10 (1)		

Component	Glycerol			
CAS No.	56-81-5			
Poland		10		
Singapore		10		
South Korea		10		
Spain		10		
Switzerland		50 inhalable aerosols		100 inhalable aerosols
USA - OSHA		15 inhalable dusts		
		5 respirable dustss		
United Kingdom		10		
	Remarks			
Australia	(1) This value is for inhalable dust containing no asbestos and			
Germany (AGS)	(1) Inhalable fraction (2) 15 minutes average value			
Germany (DFG)	(1) Inhalable fraction (2) 15 minutes average value			
New Zealand	(1) The value for inhalable dust containing no asbestos and less than 1% free silica.			

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

9. HYSICAL AND CHEMICAL PROPERTIES

Physical state	colorless liquid
Color	no data available
Odour	no data available
Melting/freezing point	0 ºC
Boiling point or initial boiling point and boiling range	100°C(lit.)
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	100ºC
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	H2O: <1 mg/mL, Ethanol: 39 mg/mL (94.5 mM), DMSO: 76 mg/mL (184.2 mM)
N-octanol-water partition coefficient	no data available
Vapour pressure	3 mm Hg (37 °C)

Density and/ or relative density	1.000g/mL at 3.98°C(lit.)
Relative vapour density	<1 (vs air)
Particle characteristics	no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available.

10.2 Chemical stability

no data available.

10.3 Possibility of hazardous reactions

no data available.

10.4 Conditions to avoid

no data available.

10.5 Incompatible materials

no data available.

10.6 Hazardous decomposition products

no data available.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumlative potential

no data available

12.4 Mobility in soil

no data available

12.5 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. TRANSPORT INFORMATION

14.1 UN Number

ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

14.2 UN Proper Shipping Name

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

14.4 Packing group, if applicable

ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

14.5 Environmental hazards

ADR/RID: No IMDG: No IATA: No

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
Water	Water	7732-18-5	231-791-2
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed.
EC Inventory			Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.

New Zealand Inventory of Chemicals (NZIoC)	Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

Chemical name	Common names and synonyms	CAS number	EC number
Sodium chloride	Sodium chloride	7647-14-5	231-598-3

European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.
EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

Chemical name	Common names and synonyms	CAS number	EC number
Sucrose	Sucrose	57-50-1	200-334-9

European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.
EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

Chemical name	Common names and synonyms	CAS number	EC number
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy-Ethane-1,2-diol, ethoxylated	Poly (ethylene glycol) - 4000	25322-68-3	500-038-2

European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.
EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Not Listed.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

Chemical name	Common names and synonyms	CAS number	EC number
Potassium sodium tartrate tetrahydrate	Potassium sodium tartrate tetrahydrate	6381-59-5	613-385-0

European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.
EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

Chemical name	Common names and synonyms	CAS number	EC number
Potassium chloride	Potassium chloride	7447-40-7	231-211-8

European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.
EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

Chemical name	Common names and synonyms	CAS number	EC number
disodium hydrogen phosphate	disodium hydrogen phosphate	10039-32-4	600-088-6

European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.
EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.

New Zealand Inventory of Chemicals (NZIoC)	Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

Chemical name	**Common names and synonyms**	**CAS number**	**EC number**
Glycerol	Glycerol	56-81-5	200-289-5
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed.
EC Inventory			Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.

Chemical name	**Common names and synonyms**	**CAS number**	**EC number**
Trisodium citrate	Sodium citrate	68-04-2	200-675-3
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed.
EC Inventory			Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.

Chemical name	**Common names and synonyms**	**CAS number**	**EC number**
Polyvinyl pyrrolidone	PVP40	9003-39-8	618-363-4
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed.
EC Inventory			Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.
Chemical name	**Common names and synonyms**	**CAS number**	**EC number**
Potassium dihydrogen orthophosphate	Potassium dihydrogen phosphate	7778-77-0	231-913-4
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed.
EC Inventory			Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.

16. OTHER INFORMATION

Abbreviations and acronyms

• CAS: Chemical Abstracts Service

• ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

• RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

• IMDG: International Maritime Dangerous Goods

• IATA: International Air Transportation Association

• TWA: Time Weighted Average

• STEL: Short term exposure limit

• LC50: Lethal Concentration 50%

• LD50: Lethal Dose 50%

• EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

- ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- ECHA - European Chemicals Agency, website: https://echa.europa.eu/

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