

# SAFETY DATA SHEET

## Muse® Human CD4 T Cell Kit, Muse® Human CD8 T Cell Kit, Muse® Human B Cell Kit

### Section 1. Identification

<b>GHS product identifier</b>	:	Muse® Human CD4 T Cell Kit, Muse® Human CD8 T Cell Kit, Muse® Human B Cell Kit
<b>Other means of identification</b>	:	<b>4700-1615</b> Muse® Human CD4 T Cell Cocktail <b>4700-1625</b> Muse® Human CD8 T Cell Cocktail <b>4700-1635</b> Muse® Human B Cell Cocktail <b>4700-1360</b> 1X Assay Buffer BA <b>4700-1620</b> Human 1X Lysing Solution
<b>Product type</b>	:	Liquid.
<b>Code</b>	:	
<b>Identified uses</b>	:	For Research Use Only. Use per Product Insert.
<b>Supplier/Manufacturer</b>	:	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 <a href="http://www.luminexcorp.com">http://www.luminexcorp.com</a>
<b>e-mail address of person responsible for this SDS</b>	:	Support@Luminexcorp.com
<b>Emergency telephone number (with hours of operation)</b>	:	1-512-381-4397 24/7

### Section 2. Hazards identification

<b>OSHA/HCS status</b>	:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
<b>Classification of the substance or mixture</b>	:	Not classified.
<b><u>GHS label elements for the kit</u></b>		
<b>Signal word</b>	:	No signal word.
<b>Hazard statements</b>	:	No known significant effects or critical hazards.
<b><u>Precautionary statements</u></b>		
<b>Prevention</b>	:	Not applicable.
<b>Response</b>	:	Not applicable.
<b>Storage</b>	:	Not applicable.
<b>Disposal</b>	:	Not applicable.
<b><u>GHS label elements by compartment</u></b>		



## Section 2. Hazards identification

<b>Signal word</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No signal word.  No signal word. No signal word.
<b>Hazard statements</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.
<b><u>Precautionary statements</u></b>		
<b>Prevention</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Not applicable.  Not applicable. Not applicable.
<b>Response</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Not applicable.  Not applicable. Not applicable.
<b>Storage</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Not applicable.  Not applicable. Not applicable.
<b>Disposal</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Not applicable.  Not applicable. Not applicable.
<b>Hazards not otherwise classified</b>	: None known.	

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

<b>Ingredient name</b>	<b>%</b>	<b>CAS number</b>
<b>4700-1615, 4700-1625, 4700-1635</b> Albumins, Blood Serum	0.1 - 1	9048-46-8
<b>4700-1360</b> Albumins, Blood Serum	0.1 - 1	9048-46-8

**United States:** The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

**Canada:** The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

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	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

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

### 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. Fire-fighting measures

### Extinguishing media

Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.

## Section 5. Fire-fighting measures

- Specific hazards arising from the chemical** : No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : No specific data.
- Special protective actions for fire-fighters** : 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** : 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 specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : No special measures required.

### Methods and materials for containment and cleaning up

- 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** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : 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** : Store in accordance with local regulations.  
 4700-1615, 4700-1625, 4700-1635: Store at 2°C to 8°C.  
 4700-1360: Store at 2°C to 8°C.  
 4700-1620: Store at Room Temperature.

## Section 8. Exposure controls/personal protection

### Control parameters

#### United States

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>4700-1615, 4700-1625, 4700-1635</b> Albumins, Blood Serum	None.
<b>4700-1360</b> Albumins, Blood Serum	None.

#### Canada



## Section 8. Exposure controls/personal protection

### Occupational exposure limits

None.

**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.

**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

<b>Physical state</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Liquid. [Clear.]  Liquid. [Clear.] Liquid. [Clear.]
<b>Color</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Colorless.  Colorless. Colorless.
<b>Odor</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	None.  None. None.
<b>Odor threshold</b>	: Not available.	
<b>pH</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Not available.  Not available. Not available.
<b>Melting point</b>	: Not available.	
<b>Initial boiling point and boiling range</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Not available.  Not available. Not available.
<b>Flash point</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Not available.  Not available. Not available.

## Section 9. Physical and chemical properties

<b>Evaporation rate</b>	:	Not available.
<b>Flammability (solid, gas)</b>	:	Not available.
<b>Lower and upper explosive (flammable) limits</b>	:	Not available.
<b>Vapor pressure</b>	:	4700-1615, Not available. 4700-1625, 4700-1635 4700-1360 Not available. 4700-1620 Not available.
<b>Vapor density</b>	:	4700-1615, Not available. 4700-1625, 4700-1635 4700-1360 Not available. 4700-1620 Not available.
<b>Relative density</b>	:	4700-1615, Not available. 4700-1625, 4700-1635 4700-1360 Not available. 4700-1620 Not available.
<b>Solubility</b>	:	4700-1615, Not available. 4700-1625, 4700-1635 4700-1360 Not available. 4700-1620 Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	:	Not available.
<b>Auto-ignition temperature</b>	:	Not available.
<b>Decomposition temperature</b>	:	Not available.
<b>Viscosity</b>	:	4700-1615, Not available. 4700-1625, 4700-1635 4700-1360 Not available. 4700-1620 Not available.
<b>Flow time (ISO 2431)</b>	:	Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	:	No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	:	4700-1615, The product is stable. 4700-1625, 4700-1635 4700-1360 The product is stable. 4700-1620 The product is stable.
<b>Possibility of hazardous reactions</b>	:	Under normal conditions of storage and use, hazardous reactions will not occur.

## Section 10. Stability and reactivity

<b>Conditions to avoid</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No specific data.  No specific data. No specific data.
<b>Incompatible materials</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	Reactive or incompatible with the following materials: oxidizing materials.  Reactive or incompatible with the following materials: oxidizing materials.  Reactive or incompatible with the following materials: oxidizing materials.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.	

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

There is no data available.

#### Irritation/Corrosion

There is no data available.

#### Sensitization

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)

There is no data available.

#### Specific target organ toxicity (repeated exposure)

There is no data available.

#### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

<b>Eye contact</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.
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## Section 11. Toxicological information

<b>Inhalation</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: 4700-1615, 4700-1625, 4700-1635 4700-1360 4700-1620	No known significant effects or critical hazards.  No known significant effects or critical hazards. No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: No known significant effects or critical hazards.
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Skin contact</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

<b>Potential immediate effects</b>	: No known significant effects or critical hazards.
<b>Potential delayed effects</b>	: No known significant effects or critical hazards.

#### Long term exposure

<b>Potential immediate effects</b>	: No known significant effects or critical hazards.
<b>Potential delayed effects</b>	: No known significant effects or critical hazards.

#### Potential chronic health effects

<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
4700-1615, 4700-1625, 4700-1635 Oral	50000 mg/kg
4700-1360 Oral	50000 mg/kg



## Section 12. Ecological information

### Toxicity

There is no data available.

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

There is no data available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. No specific disposal consideration.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-
<b>Packing group</b>	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.

**AERG** : Not applicable.

**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

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 United States inventory (TSCA 8b): Not determined.  
 TSCA 12(b) one-time export: None of the components are listed.  
 TSCA 12(b) annual export notification: None of the components are listed.  
 Clean Water Act (CWA) 307: None of the components are listed.  
 Clean Water Act (CWA) 311: Disodium hydrogenorthophosphate

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

**SARA 302/304**

Composition/information on ingredients

Name	EHS	SARA 302 TPQ		SARA 304 RQ	
		(lbs)	(gallons)	(lbs)	(gallons)
<b>4700-1615, 4700-1625, 4700-1635</b> Sodium Azide	Yes.	500	-	1000	-
<b>4700-1360</b> Sodium Azide	Yes.	500	-	1000	-
<b>4700-1620</b> Sodium Azide	Yes.	500	-	1000	-

**SARA 304 RQ** : 1153846.2 lbs / 523846.2 kg

**SARA 311/312**

**Classification** : Not applicable.

Composition/information on ingredients

Name	Classification
<b>4700-1615, 4700-1625, 4700-1635</b> Albumins, Blood Serum	ACUTE TOXICITY (oral) - Category 4
<b>4700-1360</b> Albumins, Blood Serum	ACUTE TOXICITY (oral) - Category 4

**SARA 313**

There is no data available.

**State regulations**

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

**California Prop. 65**

This product does not require a Safe Harbor warning under California Prop. 65.



## Section 15. Regulatory information

### Canadian lists

**Canada inventory (DSL NDSL)** : All components are listed or exempted.

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Ingredient name	List name	Status
Not listed.		

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
Not classified.	

### History

- Date of issue mm/dd/yyyy** : 07/30/2019
- Date of previous issue** : Not applicable
- Version** : 1
- Prepared by** : KMK Regulatory Services Inc.
- Key to abbreviations** : ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized 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.

