

SAFETY DATA SHEET

Seahorse XF Hu T Cell Activation Assay Kit

Section 1. Identification

1.1 Product identifier

Product name : Seahorse XF Hu T Cell Activation Assay Kit
Part no. (chemical kit) : 103759-100, 103766-100
Part no. : 2-deoxyglucose (2-DG) 103761-000
 ImmunoCult™ Human CD3/CD28 T Cell Activator 103760-100
Validation date : 7/29/2020

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

Material uses : For research use only. Not for use in diagnostic procedures (RUO).
 2-deoxyglucose (2-DG) 2 x 246.24 mg
 ImmunoCult™ Human CD3/CD28 T Cell Activator 1 x 2 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : 2-deoxyglucose (2-DG)	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.
ImmunoCult™ Human CD3/CD28 T Cell Activator	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.

Classification of the substance or mixture

Not classified.

ImmunoCult™ Human CD3/CD28 T Cell Activator	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 1.2%
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2.2 GHS label elements

Signal word : 2-deoxyglucose (2-DG) No signal word.
 ImmunoCult™ Human CD3/CD28 T Cell Activator No signal word.

Section 2. Hazards identification

Hazard statements : 2-deoxyglucose (2-DG) No known significant effects or critical hazards.
 ImmunoCult™ Human CD3/CD28 T Cell Activator No known significant effects or critical hazards.

Precautionary statements

Prevention : 2-deoxyglucose (2-DG) Not applicable.
 ImmunoCult™ Human CD3/CD28 T Cell Activator Not applicable.

Response : 2-deoxyglucose (2-DG) Not applicable.
 ImmunoCult™ Human CD3/CD28 T Cell Activator Not applicable.

Storage : 2-deoxyglucose (2-DG) Not applicable.
 ImmunoCult™ Human CD3/CD28 T Cell Activator Not applicable.

Disposal : 2-deoxyglucose (2-DG) Not applicable.
 ImmunoCult™ Human CD3/CD28 T Cell Activator Not applicable.

Supplemental label elements : 2-deoxyglucose (2-DG) None known.
 ImmunoCult™ Human CD3/CD28 T Cell Activator None known.

2.3 Other hazards

Hazards not otherwise classified : 2-deoxyglucose (2-DG) None known.
 ImmunoCult™ Human CD3/CD28 T Cell Activator None known.

Section 3. Composition/information on ingredients

Substance/mixture : 2-deoxyglucose (2-DG) Substance
 ImmunoCult™ Human CD3/CD28 T Cell Activator Mixture

Ingredient name	%	CAS number
2-deoxyglucose (2-DG) 2-deoxy-D-glucose	100	154-17-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

4.1 Description of necessary first aid measures

Eye contact : 2-deoxyglucose (2-DG) Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
 ImmunoCult™ Human CD3/CD28 T Cell Activator Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Section 4. First aid measures

Inhalation	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No specific data. No specific data.
Inhalation	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No specific data. No specific data.
Skin contact	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No specific data. No specific data.

Section 4. First aid measures

Ingestion	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No specific data. No specific data.
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4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No specific treatment. No specific treatment.
Protection of first-aiders	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	None known. None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No specific fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides

5.3 Advice for firefighters

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	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	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. 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

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	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 spilled material. Put on appropriate personal protective equipment. 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 spilled material. Put on appropriate personal protective equipment.
For emergency responders	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	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". 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".

6.2 Environmental precautions	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Avoid dispersal of spilled 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). Avoid dispersal of spilled 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).
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6.3 Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Methods for cleaning up	: 2-deoxyglucose (2-DG)	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	ImmunoCult™ Human CD3/CD28 T Cell Activator	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.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	: 2-deoxyglucose (2-DG)	Put on appropriate personal protective equipment (see Section 8).
	ImmunoCult™ Human CD3/CD28 T Cell Activator	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: 2-deoxyglucose (2-DG)	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.
	ImmunoCult™ Human CD3/CD28 T Cell Activator	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

: 2-deoxyglucose (2-DG)	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
ImmunoCult™ Human CD3/CD28 T Cell Activator	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Section 7. Handling and storage

Recommendations	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not applicable. Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-deoxyglucose (2-DG) 2-deoxy-D-glucose	None.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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: safety glasses with side-shields.

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.

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.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Solid. [Amorphous.] Liquid. [Clear.]
Color	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. White.
Odor	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Odor threshold	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
pH	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Melting point	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	146 to 147°C (294.8 to 296.6°F) Not available.
Boiling point	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Flash point	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Evaporation rate	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Flammability (solid, gas)	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not applicable.
Lower and upper explosive (flammable) limits	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Vapor pressure	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Vapor density	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Relative density	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Solubility	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.
Auto-ignition temperature	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	Not available. Not available.

Section 9. Physical and chemical properties

Decomposition temperature	: 2-deoxyglucose (2-DG)	Not available.
	ImmunoCult™ Human CD3/CD28	Not available.
	T Cell Activator	
Viscosity	: 2-deoxyglucose (2-DG)	Not available.
	ImmunoCult™ Human CD3/CD28	Not available.
	T Cell Activator	

Section 10. Stability and reactivity

10.1 Reactivity	: 2-deoxyglucose (2-DG)	No specific test data related to reactivity available for this product or its ingredients.
	ImmunoCult™ Human CD3/CD28	No specific test data related to reactivity available for this product or its ingredients.
	T Cell Activator	
10.2 Chemical stability	: 2-deoxyglucose (2-DG)	The product is stable.
	ImmunoCult™ Human CD3/CD28	The product is stable.
	T Cell Activator	
10.3 Possibility of hazardous reactions	: 2-deoxyglucose (2-DG)	Under normal conditions of storage and use, hazardous reactions will not occur.
	ImmunoCult™ Human CD3/CD28	Under normal conditions of storage and use, hazardous reactions will not occur.
	T Cell Activator	
10.4 Conditions to avoid	: 2-deoxyglucose (2-DG)	No specific data.
	ImmunoCult™ Human CD3/CD28	No specific data.
	T Cell Activator	
10.5 Incompatible materials	: 2-deoxyglucose (2-DG)	May react or be incompatible with oxidizing materials.
	ImmunoCult™ Human CD3/CD28	May react or be incompatible with oxidizing materials.
	T Cell Activator	
10.6 Hazardous decomposition products	: 2-deoxyglucose (2-DG)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	ImmunoCult™ Human CD3/CD28	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	T Cell Activator	

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Section 11. Toxicological information

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : 2-deoxyglucose (2-DG) Not available.
ImmunoCult™ Human CD3/CD28 Not available.
T Cell Activator

Potential acute health effects

Eye contact : 2-deoxyglucose (2-DG) No known significant effects or critical hazards.
ImmunoCult™ Human CD3/CD28 No known significant effects or critical hazards.
T Cell Activator

Inhalation : 2-deoxyglucose (2-DG) No known significant effects or critical hazards.
ImmunoCult™ Human CD3/CD28 No known significant effects or critical hazards.
T Cell Activator

Skin contact : 2-deoxyglucose (2-DG) No known significant effects or critical hazards.
ImmunoCult™ Human CD3/CD28 No known significant effects or critical hazards.
T Cell Activator

Ingestion : 2-deoxyglucose (2-DG) No known significant effects or critical hazards.
ImmunoCult™ Human CD3/CD28 No known significant effects or critical hazards.
T Cell Activator

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : 2-deoxyglucose (2-DG) No specific data.
ImmunoCult™ Human CD3/CD28 No specific data.
T Cell Activator

Inhalation : 2-deoxyglucose (2-DG) No specific data.
ImmunoCult™ Human CD3/CD28 No specific data.
T Cell Activator

Skin contact : 2-deoxyglucose (2-DG) No specific data.
ImmunoCult™ Human CD3/CD28 No specific data.
T Cell Activator

Ingestion : 2-deoxyglucose (2-DG) No specific data.
ImmunoCult™ Human CD3/CD28 No specific data.
T Cell Activator

Delayed and immediate effects and also 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.

Section 11. Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

General	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: 2-deoxyglucose (2-DG) ImmunoCult™ Human CD3/CD28 T Cell Activator	No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

N/A

Section 12. Ecological information

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

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

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

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

Section 15. Regulatory information

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : 2-deoxyglucose (2-DG) Not applicable.
ImmunoCult™ Human CD3/CD28 Not applicable.
T Cell Activator

Composition/information on ingredients

No products were found.

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.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

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 : Not determined.

China : Not determined.

Europe : Not determined.

Japan : **Japan inventory (ENCS):** Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : Not determined.

Thailand : Not determined.

Turkey : Not determined.

United States : Not determined.

Viet Nam : Not determined.

Section 16. Other information

History

Date of issue : 07/29/2020
Date of previous issue : 07/08/2020
Version : 1.2

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)
 N/A = Not available
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
Not classified.	

✔ Indicates information that has changed from previously issued version.

Notice to reader

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