

SAFETY DATA SHEET

IMT assay (anti-CD71) sample kit, Part Number 8100018

Section 1. Identification

1.1 Product identifier

Product name	: IMT assay (anti-CD71) sample kit, Part Number 8100018		
Part no. (chemical kit)	: 8100018		
Part no.	Tethering Reagent (anti-CD71)	8720260	
	10X Tethering Buffer	871B617	
	Cytolysis Reagent	8710239	
Validation date	: 5/7/2020		

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).		
	Tethering Reagent (anti-CD71)	0.25 ml	
	10X Tethering Buffer	10 ml	
	Cytolysis Reagent	10 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
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1.4 Emergency telephone number

In case of emergency	: CHEMTREC®: 1-800-424-9300
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Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status	: Tethering Reagent (anti-CD71) 10X Tethering Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). 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.
	Cytolysis Reagent	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Tethering Reagent (anti-CD71) H412	AQUATIC HAZARD (LONG-TERM) - Category 3
Cytolysis Reagent H318 H412	SERIOUS EYE DAMAGE - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3

2.2 GHS label elements

Section 2. Hazards identification

Hazard pictograms : Cytolysis Reagent



Signal word : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

No signal word.
 No signal word.
 Danger

Hazard statements : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

H412 - Harmful to aquatic life with long lasting effects.
 No known significant effects or critical hazards.
 H318 - Causes serious eye damage.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

P273 - Avoid release to the environment.
 Not applicable.
 P280 - Wear eye or face protection.
 P273 - Avoid release to the environment.

Response : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

Not applicable.
 Not applicable.
 P310 - Immediately call a POISON CENTER or doctor.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

Not applicable.
 Not applicable.
 Not applicable.

Disposal : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
 Not applicable.
 P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

None known.
 None known.
 None known.

2.3 Other hazards

Hazards not otherwise classified : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

None known.
 None known.
 None known.

Section 3. Composition/information on ingredients

Substance/mixture : **D**anger
 Tethering Reagent (anti-CD71)
 10X Tethering Buffer
 Cytolysis Reagent

Mixture
 Mixture
 Mixture

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Tethering Reagent (anti-CD71) Sodium azide	<1	26628-22-8
10X Tethering Buffer Sodium chloride	<10	7647-14-5
Cytolysis Reagent Polyoxyethylene octyl phenyl ether	<10	9002-93-1

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	: Tethering Reagent (anti-CD71)	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
	10X Tethering Buffer	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.
	Cytolysis Reagent	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Inhalation	: Tethering Reagent (anti-CD71)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	10X Tethering Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Cytolysis Reagent	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial

Section 4. First aid measures

Skin contact

: Tethering Reagent (anti-CD71)

respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

10X Tethering Buffer

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Cytolysis Reagent

Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Tethering Reagent (anti-CD71)

Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

10X Tethering Buffer

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.

Cytolysis Reagent

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

Section 4. First aid measures

Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. Causes serious eye damage.
Inhalation	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	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	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. Adverse symptoms may include the following: pain watering redness
Inhalation	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. No specific data.
Skin contact	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. Adverse symptoms may include the following: stomach pains

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

Notes to physician	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific treatment. No specific treatment. No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: Tethering Reagent (anti-CD71)	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	10X Tethering Buffer	No action shall be taken involving any personal risk or without suitable training.
	Cytolysis Reagent	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Tethering Reagent (anti-CD71)	Use an extinguishing agent suitable for the surrounding fire.
	10X Tethering Buffer	Use an extinguishing agent suitable for the surrounding fire.
	Cytolysis Reagent	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Tethering Reagent (anti-CD71)	None known.
	10X Tethering Buffer	None known.
	Cytolysis Reagent	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: Tethering Reagent (anti-CD71)	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	10X Tethering Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	Cytolysis Reagent	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Tethering Reagent (anti-CD71)	No specific data.
	10X Tethering Buffer	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	Cytolysis Reagent	Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Section 5. Fire-fighting measures

<p>Special protective actions for fire-fighters</p>	<p>: Tethering Reagent (anti-CD71)</p> <p>10X Tethering Buffer</p> <p>Cytolysis Reagent</p>	<p>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.</p> <p>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.</p> <p>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.</p>
<p>Special protective equipment for fire-fighters</p>	<p>: Tethering Reagent (anti-CD71)</p> <p>10X Tethering Buffer</p> <p>Cytolysis Reagent</p>	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</p> <p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</p> <p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</p>

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

<p>For non-emergency personnel</p>	<p>: Tethering Reagent (anti-CD71)</p> <p>10X Tethering Buffer</p> <p>Cytolysis Reagent</p>	<p>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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p> <p>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.</p> <p>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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
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Section 6. Accidental release measures

<p>For emergency responders :</p>	<p>Tethering Reagent (anti-CD71)</p> <p>10X Tethering Buffer</p> <p>Cytolysis Reagent</p>	<p>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". 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".</p>
<p>6.2 Environmental precautions</p>	<p>Tethering Reagent (anti-CD71)</p> <p>10X Tethering Buffer</p> <p>Cytolysis Reagent</p>	<p>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). Water polluting material. May be harmful to the environment if released in large quantities.</p> <p>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).</p> <p>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). Water polluting material. May be harmful to the environment if released in large quantities.</p>
<p>6.3 Methods and materials for containment and cleaning up</p> <p>Methods for cleaning up</p>	<p>Tethering Reagent (anti-CD71)</p> <p>10X Tethering Buffer</p> <p>Cytolysis Reagent</p>	<p>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.</p> <p>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.</p> <p>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.</p>

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures : Tethering Reagent (anti-CD71)

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

10X Tethering Buffer

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

Cytolysis Reagent

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Tethering Reagent (anti-CD71)

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.

10X Tethering Buffer

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.

Cytolysis Reagent

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 : Tethering Reagent (anti-CD71)

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.

10X Tethering Buffer

Store in accordance with local regulations. Store in

Section 7. Handling and storage

Cytolysis Reagent

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. 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. Store locked up. 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)

Recommendations	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not applicable. Not applicable. Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Tethering Reagent (anti-CD71) Sodium azide 10X Tethering Buffer Sodium chloride Cytolysis Reagent Polyoxyethylene octyl phenyl ether	ACGIH TLV (United States, 3/2019). C: 0.29 mg/m ³ , (as Sodium azide) C: 0.11 ppm, (as Hydrazoic acid vapor) OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. CEIL: 0.1 ppm, (as HN3) CEIL: 0.3 mg/m ³ , (as NaN3) NIOSH REL (United States, 10/2016). Absorbed through skin. CEIL: 0.1 ppm, (as HN3) CEIL: 0.3 mg/m ³ , (NAN3) None. None.

8.2 Exposure controls

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- 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	: Tethering Reagent (anti-CD71)	Liquid.
	10X Tethering Buffer	Liquid.
	Cytolysis Reagent	Liquid.
Color	: Tethering Reagent (anti-CD71)	Colorless.
	10X Tethering Buffer	Colorless.
	Cytolysis Reagent	Colorless.
Odor	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Odor threshold	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.

Section 9. Physical and chemical properties

pH	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. 7 to 7.2 Not available.
Melting point	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	0°C (32°F) Not available. Not available.
Boiling point	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	100°C (212°F) Not available. Not available.
Flash point	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Evaporation rate	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Flammability (solid, gas)	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not applicable. Not applicable. Not applicable.
Lower and upper explosive (flammable) limits	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Vapor pressure	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Vapor density	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Relative density	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Solubility	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Auto-ignition temperature	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Decomposition temperature	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.
Viscosity	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not available. Not available. Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. No specific data.
10.5 Incompatible materials	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Tethering Reagent (anti-CD71) Sodium azide	LD50 Dermal LD50 Dermal LD50 Oral	Rabbit Rat Rat	20 mg/kg 50 mg/kg 27 mg/kg	- - -
10X Tethering Buffer Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
Cytolysis Reagent Polyoxyethylene octyl phenyl	LD50 Oral	Rat	1800 mg/kg	-

Section 11. Toxicological information

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Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
10X Tethering Buffer Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Cytolysis Reagent Polyoxyethylene octyl phenyl ether	Skin - Mild irritant	Rabbit	-	24 hours 500 UI	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> Cytolysis Reagent Polyoxyethylene octyl phenyl ether	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> Tethering Reagent (anti-CD71) Sodium azide	Category 2	-	cardiovascular system, central nervous system (CNS), lungs

Aspiration hazard

Not available.

Information on the likely routes of exposure

Tethering Reagent (anti-CD71)
10X Tethering Buffer
Cytolysis Reagent

Routes of entry anticipated: Oral, Dermal, Inhalation.
Not available.
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact

Tethering Reagent (anti-CD71)
10X Tethering Buffer
Cytolysis Reagent

No known significant effects or critical hazards.
No known significant effects or critical hazards.
Causes serious eye damage.

Section 11. Toxicological information

Inhalation	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	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

Eye contact	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. Adverse symptoms may include the following: pain watering redness
Inhalation	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. No specific data.
Skin contact	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No specific data. No specific data. Adverse symptoms may include the following: stomach pains

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.
Potential delayed effects	: Not available.

Potential chronic health effects

General	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Tethering Reagent (anti-CD71) Sodium azide	27	20	N/A	N/A	N/A
10X Tethering Buffer 10X Tethering Buffer Sodium chloride	30303 3000	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Cytolysis Reagent Cytolysis Reagent Polyoxyethylene octyl phenyl ether	18181.8 1800	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Tethering Reagent (anti-CD71) Sodium azide	Acute EC50 0.348 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6.4 mg/l Fresh water	Crustaceans - Simocephalus serrulatus - Larvae	48 hours
	Acute EC50 4.2 mg/l Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours
	Acute LC50 0.68 mg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic NOEC 5600 µg/l Marine water	Algae - Macrocyctis pyrifera	96 hours
10X Tethering Buffer Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	21 days 8 weeks
Cytolysis Reagent Polyoxyethylene octyl phenyl	Acute LC50 5.85 mg/l Fresh water	Crustaceans - Ceriodaphnia	48 hours

Section 12. Ecological information

ether	Acute LC50 11.2 mg/l Fresh water	rigaudi - Neonate Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Cytolysis Reagent Polyoxyethylene octyl phenyl ether	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Cytolysis Reagent Polyoxyethylene octyl phenyl ether	4.86	-	high

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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) PAIR:** Polyoxyethylene octyl phenyl ether
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
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)
Tethering Reagent (anti-CD71) Sodium azide	<1	Yes.	500	-	1000	-

SARA 304 RQ : 333333.3 lbs / 151333.3 kg

SARA 311/312

Classification : Tethering Reagent (anti-CD71) Not applicable.
 10X Tethering Buffer Not applicable.
 Cytolysis Reagent SERIOUS EYE DAMAGE - Category 1

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
10X Tethering Buffer Sodium chloride	<10	EYE IRRITATION - Category 2A
Cytolysis Reagent Polyoxyethylene octyl phenyl ether	<10	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

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 : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): All components are listed or exempted.
New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.
United States : All components are active or exempted.
Viet Nam : Not determined.

Section 16. Other information

History

Date of issue : 05/07/2020
Date of previous issue : 12/09/2019
Version : 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
Leukemia Reagent (anti-CD71) AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method
Cytolysis Reagent SERIOUS EYE DAMAGE - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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