

SAFETY DATA SHEET



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

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

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

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

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Tethering Reagent (anti-CD71) Mixture
10X Tethering Buffer Mixture
Cytolysis Reagent Mixture

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

Tethering Reagent (anti-CD71)

H412 LONG-TERM (CHRONIC) AQUATIC HAZARD

Cytolysis Reagent

H318 SERIOUS EYE DAMAGE/EYE IRRITATION
H412 LONG-TERM (CHRONIC) AQUATIC HAZARD

Ingredients of unknown toxicity : 10X Tethering Buffer Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
Cytolysis Reagent Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%

See Section 16 for the full text of the H statements declared above.

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SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms : Cytolysis Reagent



Signal word	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	No signal word. No signal word. Danger
Hazard statements	: 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.
<u>Precautionary statements</u>		
Prevention	: 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	: 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	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not applicable. Not applicable. Not applicable.
Disposal	: 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.
Hazardous ingredients	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not applicable. Not applicable. - Polyoxyethylene octyl phenyl ether
Supplemental label elements	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not applicable. Safety data sheet available on request. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Tethering Reagent (anti-CD71) 10X Tethering Buffer Cytolysis Reagent	Not applicable. Not applicable. Not applicable.

Special packaging requirements

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SECTION 2: Hazards identification

Tactile warning of danger : Tethering Reagent (anti-CD71) Not applicable.
 10X Tethering Buffer Not applicable.
 Cytolysis Reagent Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : Tethering Reagent (anti-CD71) This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 10X Tethering Buffer This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 Cytolysis Reagent This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : Tethering Reagent (anti-CD71) None known.
 10X Tethering Buffer None known.
 Cytolysis Reagent None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : Tethering Reagent (anti-CD71) Mixture
 10X Tethering Buffer Mixture
 Cytolysis Reagent Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Tethering Reagent (anti-CD71) Sodium azide	EC: 247-852-1 CAS: 26628-22-8 Index: 011-004-00-7	≤1	Acute Tox. 2, H300 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) EUH032	[1] [2]
10X Tethering Buffer Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	<10	Eye Irrit. 2, H319	[1]
Cytolysis Reagent Polyoxyethylene octyl phenyl ether	CAS: 9002-93-1	<10	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411 See Section 16 for the full text of the H statements declared above.	[1] [5]

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.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of 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 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.
Skin contact	: Tethering Reagent (anti-CD71)	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,

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SECTION 4: First aid measures

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. 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.

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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact

: Tethering Reagent (anti-CD71)

No known significant effects or critical hazards.

10X Tethering Buffer

No known significant effects or critical hazards.

Cytolysis Reagent

Causes serious eye damage.

Inhalation

: Tethering Reagent (anti-CD71)

No known significant effects or critical hazards.

10X Tethering Buffer

No known significant effects or critical hazards.

Cytolysis Reagent

No known significant effects or critical hazards.

Skin contact

: Tethering Reagent (anti-CD71)

No known significant effects or critical hazards.

10X Tethering Buffer

No known significant effects or critical hazards.

Cytolysis Reagent

No known significant effects or critical hazards.

Ingestion

: Tethering Reagent (anti-CD71)

No known significant effects or critical hazards.

10X Tethering Buffer

No known significant effects or critical hazards.

Cytolysis Reagent

No known significant effects or critical hazards.

Over-exposure signs/symptoms

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SECTION 4: First aid measures

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 any immediate medical attention and special treatment needed

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 5: Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Tethering Reagent (anti-CD71) 10X Tethering Buffer 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. In a fire or if heated, a pressure increase will occur and the container may burst. 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
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SECTION 5: Firefighting measures

		discharged to any waterway, sewer or drain.
Hazardous combustion 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

Special precautions for fire-fighters	: Tethering Reagent (anti-CD71)	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.
	10X Tethering Buffer	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.
	Cytolysis Reagent	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	: Tethering Reagent (anti-CD71)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	10X Tethering Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Cytolysis Reagent	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Tethering Reagent (anti-CD71)	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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	10X Tethering Buffer	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 spilt material. Put on appropriate personal protective equipment.
	Cytolysis Reagent	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 spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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SECTION 6: Accidental release measures

For emergency responders	:	Tethering Reagent (anti-CD71)	If specialised 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".
		10X Tethering Buffer	If specialised 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".
		Cytolysis Reagent	If specialised 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	:	Tethering Reagent (anti-CD71)	Avoid dispersal of spilt 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.
		10X Tethering Buffer	Avoid dispersal of spilt 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).
		Cytolysis Reagent	Avoid dispersal of spilt 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.
6.3 Methods and material for containment and cleaning up			
Methods for cleaning up	:	Tethering Reagent (anti-CD71)	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.
		10X Tethering Buffer	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.
		Cytolysis Reagent	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. May be harmful to the environment if released. Dispose of spillages under controlled conditions.
6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.	

SECTION 7: Handling and storage

7.1 Precautions for safe handling

SECTION 7: Handling and storage

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 vapour 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 vapour 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

Storage	: 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 unlabelled 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 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	Cytolysis Reagent	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and

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SECTION 7: Handling and storage

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Tethering Reagent (anti-CD71) Sodium azide	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin. STEL: 0.3 mg/m ³ , (as NaN ₃) 15 minutes. TWA: 0.1 mg/m ³ , (as NaN ₃) 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
10X Tethering Buffer Sodium chloride	DNEL	Short term Oral	126.65 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	126.65 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	126.65 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	126.65 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	295.52 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	295.52 mg/kg bw/day	Workers	Systemic
	DNEL	Short term	443.28 mg/	General	Systemic

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SECTION 8: Exposure controls/personal protection

	DNEL	Inhalation Long term	m ³ 443.28 mg/ m ³	population General	Systemic
	DNEL	Inhalation Short term	m ³ 2068.62 mg/m ³	population Workers	Systemic
	DNEL	Inhalation Long term	m ³ 2068.62 mg/m ³	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour 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.

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.

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.

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.

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SECTION 9: Physical and chemical properties

Colour	: Tethering Reagent (anti-CD71)	Colourless.
	10X Tethering Buffer	Colourless.
	Cytolysis Reagent	Colourless.
Odour	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Odour threshold	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
pH	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	7 to 7.2
	Cytolysis Reagent	Not available.
Melting point/freezing point	: Tethering Reagent (anti-CD71)	0°C
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Initial boiling point and boiling range	: Tethering Reagent (anti-CD71)	100°C
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Flash point	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Evaporation rate	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Flammability (solid, gas)	: Tethering Reagent (anti-CD71)	Not applicable.
	10X Tethering Buffer	Not applicable.
	Cytolysis Reagent	Not applicable.
Upper/lower flammability or explosive limits	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Vapour pressure	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Vapour density	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Relative density	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Solubility(ies)	: Tethering Reagent (anti-CD71)	Soluble in the following materials: cold water and hot water.
	10X Tethering Buffer	Soluble in the following materials: cold water and hot water.
	Cytolysis Reagent	Soluble in the following materials: cold water and hot water.

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SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/water	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Auto-ignition temperature	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Decomposition temperature	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Viscosity	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Explosive properties	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.
Oxidising properties	: Tethering Reagent (anti-CD71)	Not available.
	10X Tethering Buffer	Not available.
	Cytolysis Reagent	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

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

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SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products	:	Tethering Reagent (anti-CD71)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		10X Tethering Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		Cytolysis Reagent	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 ether	LD50 Oral	Rat	1800 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Tethering Reagent (anti-CD71) Tethering Reagent (anti-CD71) Sodium azide	3000 27	N/A N/A	N/A N/A	N/A N/A	N/A N/A
10X Tethering Buffer Sodium chloride	3000	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

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	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

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Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Information on likely routes of exposure

Tethering Reagent (anti-CD71)	Routes of entry anticipated: Oral, Dermal, Inhalation.
10X Tethering Buffer	Not available.
Cytolysis Reagent	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation	Tethering Reagent (anti-CD71)	No known significant effects or critical hazards.
	10X Tethering Buffer	No known significant effects or critical hazards.
	Cytolysis Reagent	No known significant effects or critical hazards.
Ingestion	Tethering Reagent (anti-CD71)	No known significant effects or critical hazards.
	10X Tethering Buffer	No known significant effects or critical hazards.
	Cytolysis Reagent	No known significant effects or critical hazards.
Skin contact	Tethering Reagent (anti-CD71)	No known significant effects or critical hazards.
	10X Tethering Buffer	No known significant effects or critical hazards.
	Cytolysis Reagent	No known significant effects or critical hazards.
Eye contact	Tethering Reagent (anti-CD71)	No known significant effects or critical hazards.
	10X Tethering Buffer	No known significant effects or critical hazards.
	Cytolysis Reagent	Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

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

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

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Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

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

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	Daphnia - Daphnia pulex	21 days
Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks	

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SECTION 12: Ecological information

Cytolysis Reagent Polyoxyethylene octyl phenyl ether	Acute LC50 5.85 mg/l Fresh water	Crustaceans - Ceriodaphnia rigaudi - Neonate	48 hours
	Acute LC50 11.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours

12.2 Persistence and degradability

Not available.

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.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : Dispose of material(s) and residues under controlled conditions. 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

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SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

14.6 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.

14.7 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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
Cytolysis Reagent Polyoxyethylene octyl phenyl ether	Substance of equivalent concern for environment	Listed	42	7/3/2017

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Label : Tethering Reagent (anti-CD71) Not applicable.
10X Tethering Buffer Not applicable.
Cytolysis Reagent Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

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SECTION 15: Regulatory information

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	: <input checked="" type="checkbox"/> All components are active or exempted.
Viet Nam	: Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

 Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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SECTION 16: Other information

Classification	Justification
Tethering Reagent (anti-CD71) Aquatic Chronic 3, H412 Cytolysis Reagent Eye Dam. 1, H318 Aquatic Chronic 3, H412	Calculation method Calculation method Calculation method

Full text of abbreviated H statements

Tethering Reagent (anti-CD71) H300 H400 H410 H412 EUH032 10X Tethering Buffer H319 Cytolysis Reagent H302 H315 H318 H411 H412	Fatal if swallowed. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects. Contact with acids liberates very toxic gas. Causes serious eye irritation. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]

Tethering Reagent (anti-CD71) Acute Tox. 2 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 3 10X Tethering Buffer Eye Irrit. 2 Cytolysis Reagent Acute Tox. 4 Aquatic Chronic 2 Aquatic Chronic 3 Eye Dam. 1 Skin Irrit. 2	ACUTE TOXICITY - Category 2 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 ACUTE TOXICITY - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN CORROSION/IRRITATION - Category 2
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