

SAFETY DATA SHEET



Antibodies Reagent Kit

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

1.1 Product identifier

Product name	: Antibodies Reagent Kit	
CAS number	: Antibody Reagents	Not applicable.
	: Acealyse solution	Not applicable.
Part no. (chemical kit)	: None assigned.	
Part no.	: Antibody Reagents	8720251, 8730008
	: Acealyse solution	Not available.

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).	
	8720251 CD3/CD16+CD56/CD45/CD4/CD19/CD8 Kit	1ml
	8730008 CD3/CD8/CD45/CD4 antibody kit	2ml
	Acealyse solution	5 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
 5500 Lakeside Cheadle Royal Business Park,
 Cheadle, Cheshire, SK8 3GR
 United Kingdom
 Tel: +44 (0) 345 712 5292
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	: Antibody Reagents	Mixture
	: Acealyse solution	Mixture

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

Acealyse solution

H302	ACUTE TOXICITY (oral)	Category 4
H315	SKIN CORROSION/IRRITATION	Category 2
H319	SERIOUS EYE DAMAGE/EYE IRRITATION	Category 2
H317	SKIN SENSITISATION	Category 1
H341	GERM CELL MUTAGENICITY	Category 2
H350	CARCINOGENICITY	Category 1B
H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation)	Category 3

Ingredients of unknown toxicity : Acealyse solution 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.

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

2.2 Label elements

Antibodies Reagent Kit

SECTION 2: Hazards identification

Hazard pictograms : Acealyse solution



Signal word : Antibody Reagents
Acealyse solution

No signal word.
Danger

Hazard statements : Antibody Reagents
Acealyse solution

No known significant effects or critical hazards.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H341 - Suspected of causing genetic defects.
H350 - May cause cancer.

Precautionary statements

Prevention : Antibody Reagents
Acealyse solution

Not applicable.
P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P261 - Avoid breathing vapour.

Response : Antibody Reagents
Acealyse solution

Not applicable.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.

Storage : Antibody Reagents
Acealyse solution

Not applicable.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal : Antibody Reagents
Acealyse solution

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

Hazardous ingredients : Acealyse solution

- 2,2' -oxybisethanol
- formaldehyde

Supplemental label elements : Antibody Reagents
Acealyse solution

Not applicable.
Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Antibody Reagents
Acealyse solution

Not applicable.
Restricted to professional users.

Special packaging requirements

Tactile warning of danger : Antibody Reagents
Acealyse solution

Not applicable.
Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : Antibody Reagents
Acealyse solution

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
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 : Antibody Reagents
Acealyse solution

None known.
None known.

Antibodies Reagent Kit

SECTION 3: Composition/information on ingredients

3.1 Substances : Antibody Reagents Mixture
 Acealyse solution Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Acealyse solution 2,2' -oxybisethanol	EC: 203-872-2 CAS: 111-46-6 Index: 603-140-00-6	≥25 - ≤50	Acute Tox. 4, H302	[1] [2]
Formaldehyde, solution	EC: 200-001-8 CAS: 50-00-0 Index: 605-001-00-5	≤10	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335 See Section 16 for the full text of the H statements declared above.	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance 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	: Antibody Reagents Acealyse solution	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. 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.
Inhalation	: Antibody Reagents Acealyse solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention. If necessary, call a poison center or physician. 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.

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SECTION 4: First aid measures

Skin contact	: Antibody Reagents	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Acealyse solution	Wash with plenty of soap and 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Antibody Reagents	Wash out mouth with water. 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.
	Acealyse solution	Wash out mouth with water. Remove dentures if any. 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 necessary, call a poison center or 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	: Antibody Reagents	No action shall be taken involving any personal risk or without suitable training.
	Acealyse solution	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	: Antibody Reagents Acealyse solution	No known significant effects or critical hazards. Causes serious eye irritation.
Inhalation	: Antibody Reagents Acealyse solution	No known significant effects or critical hazards. May cause respiratory irritation.
Skin contact	: Antibody Reagents Acealyse solution	No known significant effects or critical hazards. Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: Antibody Reagents Acealyse solution	No known significant effects or critical hazards. Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact	: Antibody Reagents Acealyse solution	No specific data. Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Antibody Reagents Acealyse solution	No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing

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SECTION 4: First aid measures

Skin contact	: Antibody Reagents Acealyse solution	No specific data. Adverse symptoms may include the following: irritation redness
Ingestion	: Antibody Reagents Acealyse solution	No specific data. No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Antibody Reagents Acealyse solution	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	: Antibody Reagents Acealyse solution	No specific treatment. No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Antibody Reagents Acealyse solution	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.
Hazardous combustion products	: Antibody Reagents Acealyse solution	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters	: Antibody Reagents Acealyse solution	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Antibody Reagents Acealyse solution	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. 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.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Antibody Reagents	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.
	Acealyse solution	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.
For emergency responders	: Antibody Reagents	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".
	Acealyse solution	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

: Antibody Reagents	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).
Acealyse solution	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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: Antibody Reagents	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.
	Acealyse solution	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.

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

Protective measures	: Antibody Reagents	Put on appropriate personal protective equipment (see Section 8).
	Acealyse solution	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep

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SECTION 7: Handling and storage

Advice on general occupational hygiene

: Antibody Reagents

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.

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.

Acealyse solution

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

: Antibody Reagents

Storage temperature: 2 to 8°C (35.6 to 46.4°F). 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.

Acealyse solution

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 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

: Antibody Reagents
Acealyse solution

Industrial applications, Professional applications.
Industrial applications, Professional applications.

Industrial sector specific solutions

: Antibody Reagents
Acealyse solution

Not available.
Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Acealyse solution 2,2' -oxybisethanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 101 mg/m ³ 8 hours. TWA: 23 ppm 8 hours.
Formaldehyde, solution	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 2.5 mg/m ³ 15 minutes. STEL: 2 ppm 15 minutes. TWA: 2 ppm 8 hours.

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SECTION 8: Exposure controls/personal protection

TWA: 2.5 mg/m³ 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
Acealyse solution 2,2' -oxybisethanol	DNEL	Long term Inhalation	12 mg/m ³	General population	Local
	DNEL	Long term Inhalation	12 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	53 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	60 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	60 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	106 mg/kg bw/day	Workers	Systemic
Formaldehyde, solution	DNEL	Long term Inhalation	0.1 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.5 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	1 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	3.2 mg/m ³	General population	Systemic
	DNEL	Long term Oral	4.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	102 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	240 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.012 mg/cm ²	General population	Local
	DNEL	Long term Dermal	0.037 mg/cm ²	Workers	Local

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

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SECTION 8: Exposure controls/personal protection

- 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Antibody Reagents	Liquid.
	: Acealyse solution	Liquid.
Colour	: Antibody Reagents	Not available.
	: Acealyse solution	Not available.
Odour	: Antibody Reagents	Not available.
	: Acealyse solution	Not available.
Odour threshold	: Antibody Reagents	Not available.
	: Acealyse solution	Not available.
Melting point/freezing point	: Antibody Reagents	0°C
	: Acealyse solution	Not available.
Initial boiling point and boiling range	: Antibody Reagents	100°C (212°F)
	: Acealyse solution	Not available.
Flammability (solid, gas)	: Antibody Reagents	Not applicable.
	: Acealyse solution	Not applicable.
Upper/lower flammability or explosive limits	: Antibody Reagents	Not available.
	: Acealyse solution	Not available.
Flash point	:	

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SECTION 9: Physical and chemical properties

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
Acealyse solution						
Formaldehyde, solution	83	181.4				
Citric acid, trisodium salt, dihydrate	>100	>212				

Auto-ignition temperature

Ingredient name	°C	°F	Method
Antibody Reagents			
Sodium azide	309	588.2	EU A.16
Acealyse solution			
2,2' -oxybisethanol	229	444.2	DIN EN 14522-S
Formaldehyde, solution	430	806	

Decomposition temperature

: Antibody Reagents Not available.
: Acealyse solution Not available.

pH

: Antibody Reagents Not available.
: Acealyse solution Not available.

Viscosity

: Antibody Reagents Not available.
: Acealyse solution Not available.

Solubility(ies)

: Antibody Reagents Soluble in the following materials: cold water and hot water.
: Acealyse solution Soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water

: Antibody Reagents Not applicable.
: Acealyse solution Not applicable.

Vapour pressure

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Antibody Reagents						
water	23.8	3.2		92.258	12.3	
Sodium azide	0.0075	0.001				
Acealyse solution						
water	23.8	3.2		92.258	12.3	
Formaldehyde, solution	1	0.13				

Evaporation rate

: Antibody Reagents Not available.
: Acealyse solution Not available.

Relative density

: Antibody Reagents Not available.
: Acealyse solution Not available.

Vapour density

: Antibody Reagents Not available.
: Acealyse solution Not available.

Oxidising properties

: Antibody Reagents Not available.
: Acealyse solution Not available.

Particle characteristics

Median particle size

: Antibody Reagents Not applicable.
: Acealyse solution Not applicable.

9.2 Other information

No additional information.

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SECTION 10: Stability and reactivity

10.1 Reactivity	: Antibody Reagents Acealyse solution	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	: Antibody Reagents Acealyse solution	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Antibody Reagents Acealyse solution	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	: Antibody Reagents Acealyse solution	No specific data. No specific data.
10.5 Incompatible materials	: Antibody Reagents Acealyse solution	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: Antibody Reagents Acealyse solution	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
Acealyse solution 2,2' -oxybisethanol	LD50 Dermal	Rabbit	11890 mg/kg	-
	LD50 Oral	Rat	12000 mg/kg	-
Formaldehyde, solution	LD50 Dermal	Rabbit	270 mg/kg	-
	LD50 Oral	Rat	100 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)
Acealyse solution Acealyse solution	628.9	2727.3	N/A	30.3	N/A
2,2' -oxybisethanol	500	11890	N/A	N/A	N/A
Formaldehyde, solution	100	270	N/A	3	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acealyse solution 2,2' -oxybisethanol	Eyes - Mild irritant	Rabbit	-	50 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Formaldehyde, solution	Eyes - Severe irritant	Rabbit	-	24 hours 750 ug	-
	Eyes - Severe irritant	Rabbit	-	750 ug	-
	Skin - Moderate irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Severe irritant	Rabbit	-	0.8 %	-

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SECTION 11: Toxicological information

Sensitiser

Conclusion/Summary : 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)

Product/ingredient name	Category	Route of exposure	Target organs
Acealyse solution Formaldehyde, solution	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

: Antibody Reagents
Acealyse solution

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

Potential acute health effects

Inhalation

: Antibody Reagents
Acealyse solution

No known significant effects or critical hazards.
May cause respiratory irritation.

Ingestion

: Antibody Reagents
Acealyse solution

No known significant effects or critical hazards.
Harmful if swallowed.

Skin contact

: Antibody Reagents
Acealyse solution

No known significant effects or critical hazards.
Causes skin irritation. May cause an allergic skin reaction.

Eye contact

: Antibody Reagents
Acealyse solution

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

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation

: Antibody Reagents
Acealyse solution

No specific data.
Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion

: Antibody Reagents
Acealyse solution

No specific data.
No specific data.

Skin contact

: Antibody Reagents
Acealyse solution

No specific data.
Adverse symptoms may include the following:
irritation
redness

Eye contact

: Antibody Reagents
Acealyse solution

No specific data.
Adverse symptoms may include the following:
pain or irritation
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.

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SECTION 11: Toxicological information

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Antibody Reagents Acealyse solution	No known significant effects or critical hazards. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: Antibody Reagents Acealyse solution	No known significant effects or critical hazards. May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: Antibody Reagents Acealyse solution	No known significant effects or critical hazards. Suspected of causing genetic defects.
Reproductive toxicity	: Antibody Reagents Acealyse solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Other information	: Antibody Reagents Acealyse solution	Not available. Adverse symptoms may include the following: May cause sensitisation by inhalation.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Acealyse solution 2,2' -oxybisethanol Formaldehyde, solution	Acute LC50 75200000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 3.48 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 3.05 mg/l Marine water	Algae - Isochrysis galbana - Exponential growth phase	96 hours
	Acute EC50 12.98 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 3.26 mg/l Fresh water	Daphnia - Daphnia magna - Embryo	48 hours
	Acute LC50 1.41 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 3000 ppm Fresh water	Crustaceans - Astacus astacus - Egg	21 days
Chronic NOEC 1.56 mg/l Fresh water	Fish - Oreochromis niloticus - Fingerling	12 weeks	

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Acealyse solution Formaldehyde, solution	OECD 301A Ready Biodegradability - DOC Die-Away Test	99 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acealyse solution Formaldehyde, solution	-	-	Readily

12.3 Bioaccumulative potential

Antibodies Reagent Kit

SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
Acealyse solution 2,2' -oxybisethanol Formaldehyde, solution	-1.98 0.35	100 -	low low

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 : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

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

Antibodies Reagent Kit**SECTION 14: Transport 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**

None of the components are listed.

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

Ingredient name	EC number	CAS number	Restriction
Acealyse solution Acealyse solution formaldehyde	200-001-8	50-00-0	28 28, 72

Label : Antibody Reagents
Acealyse solution

Not applicable.
Restricted to professional users.

Other EU regulations**Ozone depleting substances (1005/2009/EU)**

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
Acealyse solution formaldehyde	UK Occupational Exposure Limits EH40 - WEL	formaldehyde; methanal	Carc.	-

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

Antibodies Reagent Kit

SECTION 15: Regulatory information

Not listed.

Inventory list

- Australia** : Not determined.
- Canada** : Not determined.
- China** : Not determined.
- Europe** : Not determined.
- Japan** : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : Not determined.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : Not determined.
- Viet Nam** : Not determined.

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]

Classification	Justification
Acealyse solution Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

Acealyse solution H301 H302 H311 H314 H315 H317 H319 H331 H335 H341	Toxic if swallowed. Harmful if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic if inhaled. May cause respiratory irritation. Suspected of causing genetic defects.
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Antibodies Reagent Kit

SECTION 16: Other information

H350	May cause cancer.
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Full text of classifications [CLP/GHS]

<p>Acealyse solution Acute Tox. 3 Acute Tox. 4 Carc. 1B Eye Irrit. 2 Muta. 2 Skin Corr. 1B Skin Irrit. 2 Skin Sens. 1 STOT SE 3</p>	<p>ACUTE TOXICITY - Category 3 ACUTE TOXICITY - Category 4 CARCINOGENICITY - Category 1B SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 GERM CELL MUTAGENICITY - Category 2 SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3</p>
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Date of issue/ Date of revision : 18/04/2022

Date of previous issue : No previous validation

Version : 1

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