

**SAFETY DATA SHEET****ALBAclone® Anti-M**

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification**Product identifier****Product name** ALBAclone® Anti-M**Product code** Z171U**Recommended use of the chemical and restrictions on use****Application** For Immunohematology Testing**Uses advised against** Use only for intended applications.**Details of the supplier of the safety data sheet****Supplier** Quotient Biodiagnostics, Inc
301 South State Street
Suite S-204
Newtown
Pennsylvania
18940 USA
Tel: +1 215 4978820
Fax: +1 888 735 1603**Manufacturer** Alba Bioscience
Allan-Robb Campus
5 James Hamilton Way
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EH26 0BF
Telephone +44 (0) 131 357 3333**Emergency telephone number****Emergency telephone speaking)** Quotient Biodiagnostics, Inc (USA) +1 215 4978820 (09:00-17:00 Monday - Friday, English speaking)**National emergency telephone number** 911**2. Hazard(s) identification****Classification of the substance or mixture****Physical hazards** Not Classified**Health hazards** Acute Tox. 4 - H302 Acute Tox. 4 - H312**Human health** Harmful if swallowed or in contact with skin. May be harmful if inhaled.**Environmental** Harmful to aquatic life with long lasting effects.**Label elements**

ALBAclone® Anti-M**Hazard symbols****Signal word**

Warning

Hazard statements

H302+H312 Harmful if swallowed or in contact with skin.

Precautionary statements

P264 Wash contaminated skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P301+P312 If swallowed: Call a poison center/ doctor if you feel unwell.
 P302+P352 If on skin: Wash with plenty of water.
 P330 Rinse mouth.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information

H412 Harmful to aquatic life with long lasting effects.
 Avoid release to the environment.

Contains

SODIUM AZIDE

Other hazards

This product does not contain any substances classified as PBT or vPvB.

Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. No known test method can offer complete assurance that products derived from animal blood will not transmit infectious agents. Therefore, all blood derivatives should be considered potentially infectious. It is recommended that these reagents be handled using established good laboratory working practices.

Hazards not otherwise classified (HNOC)

Contact with acids liberates very toxic gas.

3. Composition/information on ingredients**Mixtures****SODIUM AZIDE**

<1%

CAS number: 26628-22-8

Classification

Acute Tox. 2 - H300
 Acute Tox. 1 - H310
 Acute Tox. 2 - H330
 Skin Irrit. 2 - H315
 Eye Irrit. 2A - H319
 STOT SE 1 - H370
 STOT RE 2 - H373
 Not relevant.

The full text for all hazard statements is displayed in Section 16.

Ingredient notes

Contains monoclonal antibody in supernatant with preservatives.

4. First-aid measures**Description of first aid measures**

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General information	Never give anything by mouth to an unconscious person. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air at once. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Remove affected person from source of contamination. Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention immediately.
Skin Contact	Take off immediately all contaminated clothing and wash it before reuse. Wash skin thoroughly with soap and water. Get medical attention if symptoms are severe or persist.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.
Injection	Encourage bleeding and seek medical advice.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

Inhalation	Vapor may irritate respiratory system/lungs. May be harmful if inhaled.
Ingestion	Harmful if swallowed. Hypotension (low blood pressure).
Skin contact	Liquid may irritate skin. Harmful in contact with skin.
Eye contact	Prolonged contact may cause redness and/or tearing. May cause eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
Specific treatments	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. Effects may be delayed.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	None known.

Special hazards arising from the substance or mixture

Specific hazards	None known.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Nitrous gases (NOx). Toxic gases or vapors.
<u>Advice for firefighters</u>	
Protective actions during firefighting	Avoid breathing fire gases or vapors. Containers close to fire should be removed or cooled with water. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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For non-emergency personnel Keep unnecessary and unprotected personnel away from the spillage. Wear appropriate clothing to prevent any possibility of skin contact. Do not touch or walk into spilled material. For personal protection, see Section 8. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Avoid inhalation of vapors and spray/mists. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Provide adequate ventilation. If risk of water pollution occurs, notify appropriate authorities. Handle all blood and materials in contact with blood as if capable of transmitting infectious agents. It is recommended that blood and materials in contact with blood be handled using established good laboratory practices.

For emergency responders As above Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. If risk of water pollution occurs, notify appropriate authorities.

Methods and material for containment and cleaning up

Methods for cleaning up Provide adequate ventilation. Avoid contact with skin and eyes.
Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely.
Large Spillages: Absorb in vermiculite, dry sand or earth and place into containers. Store away from other materials. Clean contaminated surface thoroughly. Clean with disinfectants. Sodium azide has been reported to form lead or copper azides in laboratory plumbing. These azides are potentially explosive. To prevent build up, flush plumbing with a large volume of water while disposing of these solutions in the sink.
Select a disinfectant that is effective against bloodborne infectious agents. Commercial disinfectants must be used according to manufacturer directions. Disinfectants are typically hazardous chemicals that react with many chemicals, materials and living tissues. Obtain and review the manufacturer's safety information before using the disinfectant. This product contains sodium azide, which reacts with acid to liberate hydrazoic acid, a very toxic gas. Select a disinfectant with the following properties if disinfection of materials used to absorb a large volume of spilled product is required:

- Do not use any chemical or product with a pH below 6 to disinfect waste that contains sodium azide. Hydrazoic acid, a toxic gas, will be released when the pH is lower than 6.
- Do not use any chemical or product that contains mercury or any other metal to disinfect waste that contains sodium azide. This will create metal azide compounds, which can be highly explosive under pressure or shock (percussion).
- Select a disinfectant that does not bubble, effervesce or otherwise generate aerosols.
- Do not use excess disinfectant.
- Failure to follow manufacturer's directions may lead to unexpected reactions with the waste.
- Do not use a disinfectant if you do not have the proper facility, equipment and other appropriate protective measures available to work with it safely.

Reference to other sections For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Handle as a potentially infectious material. Wear appropriate clothing to prevent any possibility of skin contact. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Good personal hygiene procedures should be implemented.

Conditions for safe storage, including any incompatibilities

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Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from freezing and direct sunlight. Keep containers upright. Store away from incompatible materials (see Section 10). Avoid contact with oxidizing agents. Avoid contact with acids and alkalis.

Specific end uses(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

SODIUM AZIDE

Ceiling exposure limit: ACGIH 0.11 ppm
as hydrazoic acid vapor

A4

Ceiling exposure limit: ACGIH 0.29 mg/m³

A4

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

Biological limit values

Not listed.

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with OSHA 1910.133.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Nitrile rubber. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Wear appropriate clothing to prevent skin contamination.

Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. Do not smoke in work area. Provide eyewash station.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Respiratory protection suitable for protection from aerosol containing biological agents should be worn if there is a risk of aerosols being generated and no local exhaust ventilation is possible.

ALBAclone® Anti-M**9. Physical and chemical properties****Information on basic physical and chemical properties**

Appearance	Clear liquid.
Color	Clear/Straw coloured solution
Odor	No characteristic odor.
Odor threshold	Not applicable.
pH	pH (concentrated solution): 8.45 - 8.55
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Bulk density	Not applicable.
Solubility(ies)	Not available.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	Not available.
Explosive properties	Not considered to be explosive.
Oxidizing properties	There are no chemical groups present in the product that are associated with oxidizing properties.
Comments	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.
Volatile organic compound	No information available.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures.
Possibility of hazardous reactions	Contact with acids liberates very toxic gas. may form highly explosive metal azides if it reacts with lead, copper, silver or brass.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight.

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Materials to avoid	Strong oxidizing agents. Strong alkalis. Strong acids. Some metals. Copper. Lead. Silver. brass
Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Toxic gases or vapors. Nitrous gases (NO _x). Carbon monoxide (CO). Carbon dioxide (CO ₂).

11. Toxicological information**Information on toxicological effects****Acute toxicity - oral**

Notes (oral LD₅₀) Harmful if swallowed.

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Notes (dermal LD₅₀) Harmful in contact with skin.

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) May be harmful if inhaled.

ATE inhalation (dusts/mists mg/l) 10.8

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Inhalation No significant hazard at normal ambient temperatures. Vapor may irritate respiratory system/lungs. May be harmful if inhaled.

Ingestion Harmful if swallowed. Hypotension (low blood pressure).

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Skin Contact	Liquid may irritate skin. Harmful in contact with skin. Contains components which may penetrate the skin.
Eye contact	May irritate eyes.
Route of exposure	Skin and/or eye contact Inhalation Ingestion
Target Organs	Respiratory system, lungs Skin Eyes Heart & cardiovascular system Nervous system Brain

12. Ecological information

Ecotoxicity	Harmful to aquatic life with long lasting effects.
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Acute aquatic toxicity

Acute toxicity - fish	Not known.
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Acute toxicity - aquatic invertebrates	Not known.
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Acute toxicity - aquatic plants	Not known.
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Ecological information on ingredients.**SODIUM AZIDE****Acute aquatic toxicity**

Acute toxicity - aquatic plants	LC ₅₀ , 96 hours: 0.35 mg/l, Selenastrum capricornutum
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Persistence and degradability

Persistence and degradability	There are no data on the degradability of this product.
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Bioaccumulative potential

Bio-Accumulative Potential	No data available on bioaccumulation.
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Partition coefficient	No information available.
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Mobility in soil

Mobility	Not available.
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Other adverse effects

Other adverse effects	Avoid releasing into the environment.
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13. Disposal considerations**Waste treatment methods**

General information	When handling waste, the safety precautions applying to handling of the product should be considered.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).
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UN Number

UN No. (International)	Not applicable.
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UN No. (DOT) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

Transport Labels (International) No transport warning sign required.

DOT transport labels

No transport warning sign required.

Packing group

Packing group (International) Not applicable.

DOT packing group Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

DOT TIH Zone Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

National regulations Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

SODIUM AZIDE

<1%

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

SODIUM AZIDE

<1%

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

SODIUM AZIDE

<1%

US State Regulations

California Directors List of Hazardous Substances

SODIUM AZIDE

<1%

ALBAclone® Anti-M**Rhode Island "Right To Know" List***SODIUM AZIDE*

<1%

Minnesota "Right To Know" List*SODIUM AZIDE*

<1%

New Jersey "Right To Know" List*SODIUM AZIDE*

<1%

Pennsylvania "Right To Know" List*SODIUM AZIDE*

<1%

Inventories**Canada - DSL/NDSL**

All the ingredients are listed or exempt.

DSL
NDSL**US - TSCA**

All the ingredients are listed or exempt.

16. Other information**Abbreviations and acronyms
used in the safety data sheet**CAS: Chemical abstracts service.
PBT: Persistent, bioaccumulative and toxic substance.
vPvB: Very persistent and very bioaccumulative.ATE: Acute toxicity estimate.
LC₅₀: Lethal concentration to 50 % of a test population.
LD₅₀: Lethal dose to 50% of a test population (median lethal dose).
EC₅₀: 50% of maximal effective concentration.
IMDG: International maritime dangerous goods.
IATA: International air transport association.
TDG: The transport of dangerous goods act
UN: United Nations.
MARPOL 73/78: International convention for the prevention of pollution from ships, 1973 as modified by the protocol of 1978.
IBC: International code for the construction and equipment of ships carrying dangerous chemicals in bulk (International bulk chemical code).
GHS: Globally harmonized system.**Classification abbreviations
and acronyms**Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Eye Irrit. = Eye irritation
Skin Irrit. = Skin irritation
STOT RE = Specific target organ toxicity-repeated exposure
STOT SE = Specific target organ toxicity-single exposure

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Key literature references and sources for data	company data Material Safety Data Sheet, Misc. manufacturers. Source: European Chemicals Agency, http://echa.europa.eu/
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	J Waterfield
Revision date	11/4/2020
Revision	2.0
Supersedes date	3/5/2020
SDS No.	23311
Hazard statements in full	H300 Fatal if swallowed. H302 Harmful if swallowed. H310 Fatal in contact with skin. H312 Harmful in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H330 Fatal if inhaled. H370 Causes damage to organs (Heart & cardiovascular system, Central nervous system, Gastro-intestinal tract). H373 May cause damage to organs (Brain, Central nervous system) through prolonged or repeated exposure.
ACA HMIS Health rating.	Slight hazard. (1)
ACA HMIS Flammability rating.	Will not burn. (0)
ACA HMIS Physical hazard rating.	Normally stable. (0)
ACA HMIS Personal protection rating.	C

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.