

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

1.1. Product Identifier(s)

Name: Vitamin B12 (Vit B12) AccuBind® ELISA Test System
 Description: AccuBind® ELISA Microwells
 Code: 7625-300
 Characteristics: Microplate Enzyme Immunoassay, Colorimetric

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

Quantitative determination of Vitamin B12 concentration in human serum by a microplate enzyme immunoassay, colorimetric.
 For in vitro diagnostic use only. Not for internal or external use in humans or animals.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Importer: Manufacturer
 Name or commercial name: Monobind Inc.
 Registered office: 100 North Pointe Drive, Lake Forest, California 92630, USA
 Telephone number: +1.949.951.2665
 Fax number: +1.949.951.3539
 Email: info@monobind.com
 FDA Established
 Registration number: 2020726

1.4. Emergency telephone number

+1.949.951.2665 (Hours: 8 am-5 pm PST, Monday-Friday)

SECTION 2. HAZARD(S) IDENTIFICATION

2.1. Classification of the substance or mixture

None

2.2. Label elements

None

2.3. Other hazards

None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances and/or Mixtures

All concentrations of potentially hazardous substances or mixtures are below the specific concentration limits and M-factors for hazardous identification. As preparations, the product components are not classified as hazardous. The following substances exceed the generic cut-off values and are listed with their concentration levels. At these levels, the substances are not hazardous. See section 16 for definitions for all risk and hazards classifications.

3.1.1. Vit B12 Calibrators (A-F)

N/A

3.1.2. Vit B12 Enzyme Reagent

N/A

3.1.3. Vit B12 Biotin Reagent

N/A

3.1.4. Streptavidin Coated Plate

N/A

3.1.5. Substrate Reagent

N/A

3.1.6. Wash Solution Concentrate

N/A

3.1.7. Stop Solution

Chemical Name	Identification	Hazard Code Risk Phrase	Hazard Class Category Code	Hazard Statement	Concentration
Sulphuric Acid	CAS: 7664-93-9 EC: 231-639-5	C; R35	Skin Corr. 1A	H314	< 4.5 %

3.1.8. Releasing Agent

Chemical Name	Identification	Hazard Code Risk Phrase	Hazard Class Category Code	Hazard Statement	Concentration
Sodium Hydroxide Caustic Soda	CAS: 1310-73-2 EC: 215-185-5	C; R35	Skin Corr. 1A	H314	< 1.5 %

3.1.9. Stabilizing Agent

N/A

3.1.10. Neutralizing Buffer

N/A

SECTION 4. FIRST-AID MEASURES

4.1. Description of first aid measures

General instructions: Immediately rinse with soap and plenty of water. Use personal protective working aids.

- If inhaled: Transport the affected person into the open air. If there are respiratory complaints, oxygen must be administered. If irritation persists, seek medical advice.
- In case of skin contact: Wash contacted area with soap and water. Remove contaminated clothing. If irritation occurs, seek medical advice.
- In case of contact with eyes: Rinse with a stream of water for at least 15 minutes. Thorough rinsing must be ensured by opening the eyelids. If irritation occurs, seek medical advice.
- If ingested: Do NOT induce vomiting. If conscious, rinse the mouth and administer a large amount of water to dilute the substance. In the case of unconsciousness, never administer anything orally. If irritation occurs, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Carbon dioxide, dry powder, foam, water

5.2. Special hazards arising from the substance or mixture

None

5.3. Advice for firefighters

Wear appropriate personal protective equipment and clothing. Wear self-contained breathing apparatus, if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear suitable personal protective clothing.

6.2. Environmental precautions

Avoid penetration into sewerage systems, surface and ground water. Avoid soil pollution.

6.3. Methods and material for containment and cleaning up

Cover with suitable absorbing material. After removing the substance, rinse the spot of spilling thoroughly with water and soap. Dispose of waste according to all federal, state, and local regulations.

6.4. Reference to other sections

See Section 8 for personal protective equipment. See Section 13 for appropriate disposal methods.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spills. Avoid contact with skin, eyes and clothing. Use suitable protective means to work with the substance. Use in a well-ventilated area. Follow good manufacturing practices when using product. Do not drink, smoke, or eat in work areas.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Kit and unopened components:

Store at temperatures between + 2 and + 8 °C in a dry and dark place until expiration date.

7.2.1. Opened components:

Opened reagents are stable for sixty (60) days when stored at 2-8 °C.

7.2.2. For prepared reagents (see product insert):

Diluted wash buffer should be stored at room temperature (2-30 °C) for up to 60 days.

7.3. Specific end uses

Product procedure should be performed by a skilled individual or trained professional for in vitro diagnostic use only.

SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

No substances with occupational exposure limits.

8.2. Exposure controls

8.2.1. Eye/face protection:

Safety glasses or goggles with side shields recommended

8.2.2. Skin protection:

Compatible protective gloves recommended. Wash hands after properly removing and disposing of gloves.

Other skin protection:

Laboratory coats are recommended.

8.2.3. Respiratory protection:

No respiratory protection is required. Use product in rooms enabling good ventilation. If local exhaustion is necessary, general (forced) exhaustion is recommended.

8.2.4. Thermal hazards:

None

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

9.1.1. Appearance:

Physical state (at 20 °C)

Liquid:

Calibrators, Enzyme Reagent, Biotin Reagent, Wash Solution Concentrate, Substrate Solution, Stop Solution, Neutralizing Buffer, Releasing Agent

Solid:

Stabilizing Agent, Microtiter strips

Colour

Straw:

Calibrators

Red:

Enzyme Reagent, Neutralizing Buffer

Blue:

Biotin Reagent

- 9.1.2. Clear: Stop, Substrate, Wash, Stabilizing Agent, Releasing Agent
- 9.1.2. Odour: Stabilizing Agent (disagreeable odour)
- 9.1.3. Odour threshold: Unknown
- 9.1.4. pH value: Stop solution: < 3
Calibrators: 7.4 ± 0.2
Enzyme: 7.3 ± 0.2
Biotin: 7.3 ± 0.2
Streptavidin Wells: 7.5 ± 0.2
Wash Solution Concentrate: 8.8 ± 0.2
Substrate Reagent N: 3.2 ± 0.2
- 9.1.5. Melting point/freezing point: Not determined
- 9.1.6. Initial boiling point/ boiling range: Not determined
- 9.1.7. Flash point: Not applicable
- 9.1.8. Evaporation rate: Not determined
- 9.1.9. Flammability (solid, gas): Not flammable
- 9.1.10. Upper/lower flammability or explosive limits: Not applicable
- 9.1.11. Vapour pressure: Not determined
- 9.1.12. Vapour density: Not determined
- 9.1.13. Relative density: Not determined
- 9.1.14. Solubility: Water soluble
- 9.1.15. Partition coefficient: n-octanol/water: Not determined
- 9.1.16. Auto-ignition temperature: Not applicable
- 9.1.17. Decomposition temperature: Not determined
- 9.1.18. Viscosity: Not determined
- 9.1.19. Explosive properties: None
- 9.1.20. Oxidising properties: Not determined

9.2. Other information

None

SECTION 10. STABILITY AND REACTIVITY

10.1.Reactivity

No known reactivity hazards associated with product

10.2.Chemical stability

Stable under recommended storage conditions

10.3.Possibility of hazardous reactions

No hazardous polymerization

10.4.Conditions to avoid

Excessive heat and light

10.5.Incompatible materials

Acids

10.6.Hazardous decomposition products

Not determined

SECTION 11. TOXICOLOGICAL INFORMATION:

11.1.Information on toxicological effects

- 11.1.1. Acute toxicity: Not determined
- 11.1.2. Skin corrosion/irritation: Not determined
- 11.1.3. Serious eye damage/irritation: Not determined
- 11.1.4. Respiratory or skin sensitisation: Not determined
- 11.1.5. Germ cell mutagenicity: Not determined
- 11.1.6. Carcinogenicity: No component of this product present at levels ≥ 0.1% is identified as probable, possible or confirmed human carcinogen by NTP (National Toxicology Program), IARC (International Agency for Research on Cancer), or OSHA (Occupational Safety & Health Administration)
- 11.1.7. Reproductive toxicity: Not determined
- 11.1.8. STOT-single exposure: Not determined
- 11.1.9. STOT-repeated exposure: Not determined
- 11.1.10. Aspiration hazard: Not determined
- 11.1.11. Information on likely routes of exposure:
If ingested: No known health effects
If inhaled: No known health effects
If contact with skin: No known health effects
If contact with eyes: No known health effects
- 11.1.12. Symptoms related to the physical, chemical, and toxicological characteristics: None after short or long-term exposure

SECTION 12. ECOLOGICAL INFORMATION

12.1.Toxicity

Not determined.

12.2.Persistence and degradability

Not determined

12.3.Bioaccumulative potential

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- Not determined
- 12.4. Mobility in soil**
Not determined
- 12.5. Results of PBT and vPvB assessment**
Not determined
- 12.6. Other adverse effects**
Not determined

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

All waste disposals must be carried out in accordance with federal, state, and local legislation and administrative regulations. A licensed professional waste disposal service should be utilized to dispose of material and packaging.

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

Not available

14.2. UN proper shipping name

Not available

14.3. Transport hazard class(es)

Not available

14.4. Packing group

Not available

14.5. Environmental hazards

- Overland transport (ADR/RID): Not regulated
- Water transport (ADN/IMDG): Not regulated
- Air transport (ICAO/IATA): Not regulated

14.6. Special precautions for user

None

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

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

SARA Reporting Requirements: None

TSCA All components in product preparations are listed on the US Toxic Substances Control Act inventory of chemicals or are exempt from listing.

This safety data sheet has been prepared to comply with the requirements of Annex II, European Community Regulation No. 1907/2006 REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) and OSHA (Occupational Safety & Health Administration) 1910.1200, Appendix D.

15.2. Chemical safety assessment

None

SECTION 16. OTHER INFORMATION

Revision 2 (2019-Sep-17): Updated to include component pH value details

Revision 1 (2015-MAY-05): updated to comply with requirements of Annex II, European Community Regulation No. 1907/2006 (REACH) and OSHA 1910.1200, Appendix D

Revision 0 (2011-DEC-01): Initial creation

<i>Hazard Statements</i>		<i>Hazard Class and Category Codes</i>	
H314	Causes severe skin burns and eye damage	Skin Corr.	Skin Corrosion/Irritation
<i>Hazard Codes</i>		<i>Risk Phrases</i>	
C	Corrosive	R35	Causes severe burns

The material safety data sheet contains data necessary to ensure safety and health and environmental protection in working with chemical substances. This product is a chemical substance and can be solely used by persons with chemical education at their own risk. Monobind kits are designed for biomedical research. The manufacturer has no responsibility for damage caused by unsuitable use and by disrespecting the enclosed working instructions. The above-stated information cannot be considered as complete and must be understood to be only a methodical instruction.

DOCUMENT HISTORY			
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