SAFETY DATA SHEET

According to OSHA HazCom 2012
Revision date 01-Apr-2024
Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Name LBIS™ Human Apo B-48 ELISA Kit

Other means of identification
Product Code(s) 298-88901

Recommended use of the chemical and restrictions on use
Recommended Use For research use only.
Uses advised against No information available

Details of the supplier of the safety data sheet
Distributor
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2. HAZARDS IDENTIFICATION

GHS classification
Classification of the substance or mixture

Corrosive to metals	Category 1
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 1 A
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 1
Category 1 respiratory system	
Specific target organ toxicity (repeated exposure)	Category 1
Category 1 respiratory system	
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 1

Pictograms

Signal word Danger

Hazard statements
H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

H331 - Toxic if inhaled
H317 - May cause an allergic skin reaction
H402 - Harmful to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H370 - Causes damage to the following organs: respiratory system
H372 - Causes damage to the following organs through prolonged or repeated exposure: respiratory system

Precautionary statements-(Prevention)

Use only outdoors or in a well-ventilated area Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Contaminated work clothing should not be allowed out of the workplace Do not eat, drink or smoke when using this product Avoid release to the environment Keep only in original container

Precautionary statements-(Response)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
Collect spillage Absorb spillage to prevent material damage

Precautionary statements-(Storage)

Store in a well-ventilated place. Keep container tightly closed Store locked up Store in corrosive resistant/ container with a resistant inner liner

Precautionary statements-(Disposal)

Dispose of contents/container to an approved waste disposal plant

Others

Other hazards Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Kit (Set of mixtures)

Chemical Name	Molecular weight	CAS RN	Weight-%
Antibody-coated Plate	N/A	N/A-29-8891	-
Human Apo B-48 Standard	N/A	N/A-29-8892	-
Buffer	N/A	N/A-29-8893	-
Biotin-conjugated Antibody Solution	N/A	N/A-29-8894	-
Peroxidase-conjugated Streptavidin	N/A	N/A-29-8895	-
TMB Solution	N/A	N/A-29-8896	-
Stop Solution	N/A	N/A-29-8897	-
Wash Solution(10×)	N/A	N/A-29-8898	-
Plate Seal	N/A	N/A-29-8899	-

Impurities and/or Additives： Not applicable

Substances Remarks: This Product includes the following componets. EDTA, disodium salt, dihydrate <6.0 %, 2-Methyl-4-isothiazoline-3-one <0.50 %, 2-Amino-2-hydroxymethyl-1,3-propanediol <20 %, Sulfuric Acid <7.0 %, Sodium Chloride <10 %, Polyoxyethylene(20) Sorbitan Monolaurate <7.0 %

4. FIRST AID MEASURES

First aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Inhalation Remove to fresh air.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact none.
Sensitivity to Static Discharge none.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods and material for containment and cleaning up Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures Avoid contact with alkaline substances. Avoid contact with metal.
Protective measures Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage conditions Store away from sunlight in a cool (2-10 °C) well-ventilated dry place.

Incompatible materials alkaline substances. Metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits Not applicable

Chemical Name	ACGIH	OSHA PEL	NIOSH IDLH
Sulfuric Acid 7664-93-9	TWA 0.2mg/m³	TWA: 1 mg/m³ (vacated) TWA: 1 mg/m³	IDLH: 15 mg/m³ TWA: 1 mg/m³

Personal protective equipment

Respiratory protection Gas mask for acidic gas (JIS T 8152)
Hand protection chemical protective gloves (JIS T 8116)
Eye protection protective eyeglasses or chemical safety goggles (JIS T 8147)
Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	
Appearance	Kit (Set of mixtures)
Odor	no data available
pH	no data available
Melting point/freezing point	no data available
Boiling point, initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate:	no data available
Flammability (solid, gas):	no data available
Upper/lower flammability or explosive limits	
Upper：	no data available
Lower：	no data available
Vapour pressure	no data available
Vapour density	no data available
Specific Gravity / Relative density	no data available
Solubilities	
n-Octanol/water partition coefficient:(log Pow)	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
Viscosity (coefficient of viscosity)	no data available
Dynamic viscosity	no data available

10. STABILITY AND REACTIVITY

Stability

Chemical stability Stable under recommended storage conditions.
Reactivity no data available

Hazardous reactions

Corrodes metals to generate hydrogen gas.

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

alkaline substances, Metals

Hazardous decomposition products

Carbon monooxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Sulfur oxides (SOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Chloride	N/A	N/A	> 42 mg/L (Rat) 1 h
Sulfuric Acid	2140 mg/kg (Rat)	N/A	0.375 mg/L (Rat) 4 h
Poly(oxyethylene)sorbitan monolaurate	37000 mg/kg (Rat) 36700 µL/kg (Rat)	N/A	> 5.1 mg/L (Rat) 4 h
2-Methyl-2H-isothiazol-3-one	120 mg/kg (Rat)	200 mg/kg (Rabbit)	0.11 mg/L (Rat) 4 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Sulfuric Acid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
Sulfuric Acid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Skin irritation/corrosion

Chemical Name	Skin corrosion/irritation source information
Sulfuric Acid	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Sulfuric Acid	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
Sulfuric Acid	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagencity source information
Sulfuric Acid	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Sulfuric Acid	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Sulfuric Acid 7664-93-9	-	Group 1	A2	-

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Sulfuric Acid	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Sulfuric Acid	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Sulfuric Acid	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Sulfuric Acid	Based on the NITE GHS classification results.

12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium Chloride 7647-14-5	N/A	LC50 : Lepomis macrochirus 5560 - 6080 mg/L 96 h LC50 : Lepomis macrochirus 12946 mg/L 96 h LC50 : Pimephales promelas 6020 - 7070 mg/L 96 h LC50 : Pimephales promelas 7050 mg/L 96 h LC50 : Pimephales promelas 6420 - 6700 mg/L 96 h LC50 : Oncorhynchus mykiss 4747 - 7824 mg/L 96 h	N/A	EC50 : Daphnia magna 1000 mg/L 48 h EC50 : Daphnia magna 340.7 - 469.2 mg/L 48 h
Sulfuric Acid 7664-93-9	N/A	LC50:Lepomis macrochirus 16 - 28 mg/L 96 h	N/A	LC50:Daphnia magna 29 mg/L 24 h
2-Methyl-2H-isothiazol-3-one 2682-20-4	N/A	LC50 : Oncorhynchus mykiss 0.07 mg/L 96 h	N/A	EC50 : Daphinia magna 0.18 mg/L 48 h

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility

no data available

Chemical Name	Partition coefficient
2-Methyl-2H-isothiazol-3-one 2682-20-4	-0.26

Mobility in soil No information available

Other Data No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Precautionary including method of disposing contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT

UN/ID No UN2796

Proper shipping name: Sulphuric acid

UN classfication 8
Subsidiary hazard class
Packing group II
Marine pollutant Yes

IATA

UN/ID No UN2796
Proper shipping name: Sulphuric acid
UN classfication 8
Subsidiary hazard class
Packing group II
Environmentally Hazardous Substance Yes

IMDG

UN/ID No UN2796
Proper shipping name: Sulphuric acid
UN classfication 8
Subsidiary hazard class
Packing group II
Marine pollutant (Sea) Yes

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS RN	Weight-%	SARA 313 - Threshold Values %
Antibody-coated Plate - N/A-29-8891	N/A-29-8891	-	N/A
Human Apo B-48 Standard - N/A-29-8892	N/A-29-8892	-	N/A
Buffer - N/A-29-8893	N/A-29-8893	-	N/A
Biotin-conjugated Antibody Solution - N/A-29-8894	N/A-29-8894	-	N/A
Peroxidase-conjugated Streptavidin - N/A-29-8895	N/A-29-8895	-	N/A
TMB Solution - N/A-29-8896	N/A-29-8896	-	N/A
Stop Solution - N/A-29-8897	N/A-29-8897	-	N/A
Wash Solution(10×) - N/A-29-8898	N/A-29-8898	-	N/A
Plate Seal - N/A-29-8899	N/A-29-8899	-	N/A

SARA 311/312 Hazard Categories

Acute health hazard No
Chronic Health Hazard No
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any chemicals regulated by Proposition 65

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations
U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

Issue Date 29-Mar-2024
Revision date 01-Apr-2024
Revision Note
No information available
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet