ExoCap™ Streptavidin Kit Revised: 09/30/2016, 1/10



# SAFETY DATA SHEET

1. Identification

Product identifier ExoCap™ Streptavidin Kit

Treatment Buffer, Washing/Dilution Buffer

Other means of identification

Product code MEX-SA

Recommended use Research use only.

Recommended restrictions None known.

Manufacturer / Importer / Supplier / Distributor information

Manufacturer andMedical & Biological Laboratories (MBL) Co., Ltd.Supplier (Asia)4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, JapanTelephone number+81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)

 Fax
 +81-52-238-1440

 E-mail
 sds-support@mbl.co.jp

URL http://www.mbl.co.jp/e/index.html

Contact person SDS Support

Supplier MBL International Corporation

15A Constitution Way, Woburn, MA 01801, USA

**Telephone number** +1-800-200-5459, option 3

Fax +1-781-939-6963
E-mail tech@mblintl.com
URL http://www.mblintl.com/
Contact person Technical Service

# 2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
OSHA hazard(s) Not classified.

Label elements

Hazard symbol None.
Signal word None.
Hazard statement None.

Precautionary statement

**Prevention** Observe good industrial hygiene practices.

**Response** Wash thoroughly after handling.

Storage None.
Disposal None.
Hazard(s) not otherwise None.

classified (HNOC)

# 3. Composition/Information on ingredients

# Mixtures

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

# 4. First-aid measures

**Inhalation** Under normal conditions of intended use, this material is not expected to be an inhalation

hazard.

**Skin contact** Remove contaminated clothing. Dry skin with paper towel or similar. Get medical attention if

irritation develops or persists.

Eye contact Rinse immediately with plenty of water, also under the eyelids. Get medical attention if

irritation develops or persists.

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Ingestion No adverse effects due to ingestion are expected. Get medical attention if any discomfort

occurs.

Most important symptoms/ effects, acute and delayed

Dry skin.

Indication of immediate medical attention and special Treat symptomatically.

treatment needed

**General information** Get medical attention if any discomfort develops.

5. Fire-fighting measures

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing

media

None known.

Specific hazards arising from None known.

the chemical

and precautions for firefighters

Special protective equipment Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires. Selection of respiratory protection for firefighting: follow the general fire

precautions indicated in the workplace.

Fire-fighting equipment/

instructions

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards The product is non-combustible.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid prolonged and repeated contact. Wear suitable protective clothing. For personal

protection, see Section 8 of the SDS.

Methods and materials for containment and cleaning up Absorb spillage with non-combustible, absorbent material. After removal, flush contaminated

area thoroughly with water. For waste disposal, see Section 13 of the SDS.

Prevent further leakage or spillage if safe to do so. **Environmental precautions** 

7. Handling and storage

Precautions for safe handling Avoid prolonged and repeated contact. Wear appropriate personal protective equipment.

Observe good industrial hygiene practices.

Conditions for safe storage.

including any incompatibilities Keep container closed.

# 8. Exposure controls/personal protection

Occupational exposure limits No exposure limits noted for ingredient(s).

**Biological limit values** No biological exposure limits noted for the ingredient(s).

Appropriate engineering

controls

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

If risk of splashing, wear safety goggles or face shield.

Skin protection Hand protection

Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change

is advisable. Suitable gloves can be recommended by the glove supplier.

Wear protective gloves. Wear appropriate clothing to prevent repeated or prolonged skin Other

contact.

Respiratory protection

No protection is ordinarily required under normal conditions of use.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and

protective equipment to remove contaminants.

# 9. Physical and chemical properties

**Appearance** 

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**Physical state** Liquid. **Form** Liquid. Colorless. Color Odor Odorless. **Odor threshold** Not available. Ηα Not available. Melting point/freezing point Not available. Initial boiling point and Not available.

boiling range

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit Not available.

- lower (%)

Flammability limit Not available.

- upper (%)

Vapor pressureNot available.Vapor densityNot available.Relative densityNot available.Solubility(ies)Soluble in water.Partition coefficientNot available.

(n-octanol/water)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

# 10. Stability and reactivity

Reactivity The product is stable and non reactive under normal conditions of use, storage and

Chemical stability Stable at normal conditions.

Possibility of hazardous

reactions

None known.

Conditions to avoid None known.

Incompatible materials None known.

**Hazardous decomposition** No hazard in normal industrial use.

products

## 11. Toxicological information

## Information on likely routes of exposure

**Ingestion** Large quantities: May cause discomfort if swallowed.

**Inhalation** Under normal conditions of intended use, this material is not expected to be an inhalation

hazard.

**Skin contact** Prolonged contact may cause dryness of the skin. **Eye contact** Direct contact with eyes may cause temporary irritation.

Symptoms related to the Dry skin.

physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

Serious eye damage/eye

Large quantities: May cause discomfort if swallowed.

Prolonged contact may cause dryness of the skin.

Direct contact with eyes may cause temporary irritation.

irritation

Respiratory sensitizationNo data available.Skin sensitizationNot a skin sensitizer.Germ cell mutagenicityNo data available.CarcinogenicityNo data available.Reproductive toxicityNo data available.

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Specific target organ toxicity No data available.

- single exposure

Specific target organ toxicity No data available.

- repeated exposure

**Aspiration hazard** No data available.

# 12. Ecological information

**Ecotoxicity** The product components are not classified as environmentally hazardous. However, this

does not exclude the possibility that large or frequent spills have a harmful or damaging

effect on the environment.

Persistence and degradability No data available. Bioaccumulative potential No data available. Mobility in soil No data available.

Mobility in general The product is water soluble and may spread in water systems.

Other adverse effects No data available.

# 13. Disposal considerations

**Disposal instructions** Dispose of in accordance with all applicable regulations. Do not discharge into drains, water

courses or onto the ground.

Local disposal regulations Dispose of in accordance with local regulations.

Hazardous waste code Not regulated.

products

Waste from residues / unused Dispose of in accordance with local regulations.

Contaminated packaging Dispose of in same manner as unused product.

Not applicable.

## 14. Transport information

DOT Not regulated as dangerous goods. **IATA** Not regulated as dangerous goods. **IMDG** Not regulated as dangerous goods.

Transport in bulk according

to Annex II of MARPOL 73/78

and the IBC Code

### 15. Regulatory information

**US** federal regulations This product is not hazardous according to OSHA 29CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed. CERCLA Hazardous Substance List (40 CFR 302.4) Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - No

> Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

Not regulated. Not listed.

SARA 302 Extremely hazardous substance No SARA 311/312 Hazardous chemical No

Not regulated. SARA 313 (TRI reporting)

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated. Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.

Safe Drinking Water Act (SDWA) Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR

1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 Not regulated.

CFR 1310.12(c))

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# **DEA Exempt Chemical Mixtures Code Number**

Food and Drug Administration (FDA)

Not regulated. Not regulated.

**US state regulations** This product does not contain a chemical known to the State of California to cause cancer,

birth defects or other reproductive harm.

Massachusetts RTK - Substance ListNot regulated.New Jersey Worker and Community Right-to-Know ActNot regulated.Pennsylvania RTK - Hazardous SubstancesNot regulated.Rhode Island RTKNot regulated.California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT)Not listed.

#### **International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	EC Inventory	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PIC	CS) Yes
<b>United States &amp; Puerto</b>	Toxic Substances Control Act (TSCA) Inventory	Yes

Rico

### 16. Other information

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Further information Not available.

**Disclaimer** This information is provided without warranty. The information is believed to be correct. This

information should be used to make an independent determination of the methods to

safeguard workers and the environment.

<sup>\*</sup>A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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# SAFETY DATA SHEET

1. Identification

Product identifier ExoCap™ Streptavidin Kit

Streptavidin Magnetic Beads

Other means of identification

Product code MEX-SA

Recommended use Research use only.

Recommended restrictions None known.

Manufacturer / Importer / Supplier / Distributor information

Manufacturer andMedical & Biological Laboratories (MBL) Co., Ltd.Supplier (Asia)4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, JapanTelephone number+81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)

**Fax** +81-52-238-1440 **E-mail** sds-support@mbl.co.jp

URL http://www.mbl.co.jp/e/index.html

Contact person SDS Support

**Supplier** MBL International Corporation

15A Constitution Way, Woburn, MA 01801, USA

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Fax +1-781-939-6963
E-mail tech@mblintl.com
URL http://www.mblintl.com/
Contact person Technical Service

# 2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
OSHA hazard(s) Not classified.

Label elements

Hazard symbolNone.Signal wordNone.Hazard statementNone.Precautionary statement

**Prevention** Observe good industrial hygiene practices.

Response Wash hands after handling.

None.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise

classified (HNOC)

# 3. Composition/Information on ingredients

### **Mixtures**

Chemical name	CAS number	%
Iron oxide (Magnetite)	1309-38-2	< 0.1
2-Methyl-4-isothiazolin-2-one	2682-20-4	< 0.01

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations

are in percent by volume.

# 4. First-aid measures

**Inhalation** Under normal conditions of intended use, this material is not expected to be an inhalation

hazard.

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Skin contact Remove contaminated clothing. Dry skin with paper towel or similar. Get medical attention if

irritation develops or persists.

Eye contact Rinse immediately with plenty of water, also under the eyelids. Get medical attention if

irritation develops or persists.

Ingestion Drink plenty of water. Get medical attention if any discomfort occurs.

Most important symptoms/ effects, acute and delayed

May cause irritation on skin or eye contact.

medical attention and special

treatment needed

Indication of immediate

**General information** Get medical attention if any discomfort develops.

Treat symptomatically.

# 5. Fire-fighting measures

Suitable extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing

media

None known.

Specific hazards arising from None known.

the chemical

and precautions for firefighters

Special protective equipment Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions Move containers from fire area if you can do that without risk. Use water spray to cool

unopened containers. Prevent entry to sewers and pubic waters.

### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and prolonged skin contact. For personal protection, see Section 8

of the SDS.

Methods and materials for containment and cleaning up

Absorb spillage with suitable absorbent material. After removal, flush contaminated area

thoroughly with water.

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

### 7. Handling and storage

Precautions for safe handling Avoid contact with eyes and prolonged skin contact. Wash hands after handling. Observe

good industrial hygiene practices.

Conditions for safe storage, including any

incompatibilities

Keep container tightly closed.

# 8. Exposure controls/personal protection

Occupational exposure limits No exposure limits noted for ingredient(s).

No biological exposure limits noted for the ingredient(s). **Biological limit values** 

No exposure standards allocated. **Exposure guidelines** Ventilation is not normally required. Appropriate engineering

controls

Individual protection measures, such as personal protective equipment

Risk of splashes: Wear safety glasses with side shields. Eye/face protection

Skin protection

Risk of contact: Wear protective gloves. Nitrile or neoprene gloves are recommended. Hand protection

Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Wear appropriate clothing to prevent repeated or prolonged skin contact. Other

Respiratory protection No special precautions. Seek advice from local supervisor.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene Handle in accordance with good industrial hygiene and safety practice. Wash hands after handling. Routinely wash work clothing and protective equipment to remove contaminants. considerations

### 9. Physical and chemical properties

ExoCap™ Streptavidin Kit Revised: 09/30/2016, 8/10

**Appearance** 

Physical state Suspension.

**Form** Suspension or sediment with liquid.

Color Brown.

Odor Odorless.

Odor threshold Not available.

pH Neutral.

Melting point/freezing point Not available.

Initial boiling point and Not available.

boiling range

Flash point Not applicable.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit

Not applicable.

- lower (%)

Flammability limit

Not applicable.

- upper (%)

Vapor pressureNot available.Vapor densityNot available.Relative densityNot available.Solubility(ies)Soluble in water.Partition coefficientNot available.

(n-octanol/water)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

### 10. Stability and reactivity

**Reactivity** The product is non-reactive under normal conditions of use, storage and transport.

Chemical stability Stable at normal conditions.

Possibility of hazardous

reactions

Hazardous polymerization does not occur. Hazardous reactions do not occur.

Conditions to avoid Contact with incompatible materials. Elevated temperatures.

Incompatible materials Strong acid, strong basic substance and electrolyte solution.

Hazardous decomposition

products

None known.

## 11. Toxicological information

Information on likely routes of exposure

**Ingestion** May cause discomfort if swallowed.

**Inhalation** Under normal conditions of intended use, this material is not expected to be an inhalation

hazard.

**Skin contact** Prolonged contact may cause dryness of the skin.

Eye contact May cause eye irritation on direct contact.

Symptoms related to the May cause irritation on skin or eye contact.

physical, chemical and toxicological characteristics

Information on toxicological effects

**Acute toxicity** 

Components		Species	Test results		
Iron oxide (Magnetite) (CAS 1309-38-2)					
Acute					
Oral	LD50	Rat	5,000 mg/kg		
2-Methyl-4-isothiazolin-3-one (CAS 2682-20-4)					
Acute					
Oral	LD50	Rat	53 mg/kg		

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Skin corrosion/irritation

May cause mild skin irritation.

Serious eye damage/eye

May cause eye irritation on direct contact.

irritation

Respiratory sensitization

No data available. May cause sensitization by skin contact.

Germ cell mutagenicity

No data available.

Carcinogenicity

Skin sensitization

This product is not considered to be a carcinogen by IARC.

Reproductive toxicity Specific target organ toxicity No data available.

- single exposure

Not classified.

Specific target organ toxicity

Not classified.

- repeated exposure

**Aspiration hazard** Not classified.

# 12. Ecological information

**Ecotoxicity** 

The product contains a substance which is toxic to aquatic organisms and which may cause

long-term adverse effects in the aquatic environment.

Components **Species Test Results** 2-Methyl-4-isothiazolin-3-one (CAS 2682-20-4) Aquatic Crustacea LC50 Calanoid copepod (Acartia clausi) 0.056 mg/L, 48 hours 0.07 mg/L, 96 hours Fish LC50 Rainbow trout (Oncorhynchus mykiss)

Bioaccumulative potential

Persistence and degradability No data available.

No data available. Mobility in soil

Expected to be highly mobile in soil.

Mobility in general Other adverse effects The product is water soluble and may spread in water systems. The environmental hazard of the product is considered to be limited.

### 13. Disposal considerations

**Disposal instructions** Dispose of in accordance with all applicable regulations. Do not discharge into drains, water

courses or onto the ground.

Local disposal regulations

Dispose of in accordance with local regulations.

Hazardous waste code

Not regulated.

Waste from residues / unused Dispose of in accordance with local regulations. products

Contaminated packaging

Dispose of in same manner as unused product.

### 14. Transport information

DOT Not regulated as dangerous goods. Not regulated as dangerous goods. **IATA IMDG** Not regulated as dangerous goods.

Transport in bulk according

to Annex II of MARPOL 73/78

and the IBC Code

# 15. Regulatory information

**US** federal regulations This product is not hazardous according to OSHA 29CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not applicable.

Not regulated. Not listed. Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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Hazard categories Immediate Hazard - No

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance No SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

**US state regulations** This product does not contain a chemical known to the State of California to cause cancer,

birth defects or other reproductive harm.

Massachusetts RTK - Substance ListNot regulated.New Jersey Worker and Community Right-to-Know ActNot regulated.Pennsylvania RTK - Hazardous SubstancesNot regulated.Rhode Island RTKNot regulated.California Proposition 65Not listed.

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	EC Inventory	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PIC	CS) Yes
United States & Puerto	Toxic Substances Control Act (TSCA) Inventory	Yes

Rico

# 16. Other information

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**List of abbreviations** EC50: Effective Concentration, 50%.

LC50: Lethal Concentration, 50%.

LD50: Lethal Dose, 50%.

**Disclaimer** This information is provided without warranty. The information is believed to be correct. This

information should be used to make an independent determination of the methods to

safeguard workers and the environment.

<sup>\*</sup>A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).