

Material Safety Data Sheet (MSDS)

MAGic™ Beads Streptavidin

1. Product and Company Information

Product name

MAGic™ Beads Streptavidin

General use

Binding of biotinylated proteins and their purification. For *in vitro* research use only. Not for animal or human use.

Product number

16xx

Chemical family

Not defined

CAS number

Not yet assigned

Manufacturer's name and address

MAGic BioProcessing (Lab-on-a-Bead AB), Virdings Allé 28, SE-75450 Uppsala, Sweden,

Contact person

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Product use

For *in vitro* isolation and purification of biotinylated molecules. Not for animal or human use.

2. Hazards Identification

Classification of the substance**Product definition**

The product is a mixture.

Classification according to regulation (EC) No.1272/2008(CLP/GHS) and 67/548/EEC

R10, Flammable Liquid 3, H226

Ingredients of unknown toxicity

No information available, product should be handled with caution.

Ingredients of unknown ecotoxicity

No information available. Spill to the environment should be prevented.

Ingredients of known ecotoxicity

Contains ethanol 15-20% which is toxic to aquatic environment.

Classification

R10, H226

Physical/chemical hazards

Flammable

Product may cause sensitization by inhalation and skin contact. May cause adverse effects in the environment.

Label elements

Flammable

**Hazard statement**

Flammable liquid and vapors

Precautionary statements**Prevention**

Wear protective gloves. Wear eye or face protection, use safety glasses with side protection.
Keep away from heat, sparks, open flames and hot surfaces.

Response

If on skin or hair, take off contaminated clothing. Rinse skin or hair with plenty of water.

Storage

Keep cool

Other hazards which do not result in classification

Not available

Potential health effects

Eyes: May cause irritation to the eyes

Skin: May cause irritation to the skin

Ingestion: No data available

Inhalation: No data available

Effects of acute exposure after ingestion or inhalation

No data available

Effects of chronic exposure

No data available

3. Composition/Information on Ingredients

Ingredients/Components

Product/ingredient	Identifiers	%	Classification	
			Regulation 67548/EEC	1272/2008 (CLPGHS)
Ethanol		15-20	Flammable, R10	Flammable liquid, H226
MAGic™ Beads Streptavidin		10	Not classified	
Water		70-75	N/A	N/A

CAS Registry Number

Not yet assigned

4. First Aid Measures

Inhalation

Remove exposed subject to fresh air. Seek immediate medical attention if symptoms appear.

Ingestion

Do not ingest. Seek immediate medical attention if symptoms appear.

Skin

Wash skin with soap and rinse with plenty of water. Seek medical attention if irritation develops.

Eyes

Immediately flush eyes with plenty of water. If symptoms as redness or irritation, seek immediate medical attention.

Protection to first aiders

No action shall be taken involving any personal risk without suitable training

Most important symptoms and effects, acute and delayed

Potential acute health effects

Eye contact

No known acute effect

Inhalation

No known acute effect

Skin contact

No known acute effect

Ingestion

No known acute effect

Over exposure signs

Eye contact

No data available

Inhalation

No data available

Skin contact

No data available

Ingestion

No data available

5. Fire Fighting Measures

Extinguishing media

Use dry chemical, CO₂, water or foam

Conditions of flammability

Flash point

≥23°C

Initial boiling point

≥60°C

Auto-ignition temperature

No data available

Hazards from the substance or mixture

Flammable liquid and vapor

Hazardous combustion products

Decomposition product may contain the following materials:

Carbon dioxide

Carbon monoxide

Advice to firefighters

Special precautions for firefighters

Isolate the fire scene by removing all persons from the vicinity of the incident if there is a fire. No involvement of un-trained personal should take place. Move all containers to a safe area. Use water spray to keep containers cool.

Special protective equipment for fire-fighters

Fire fighters should wear appropriate protective gowning and self-contained full face breathing apparatus. MAGic™Beads Streptavidin is stable under normal environmental storage conditions.

Explosion data

MAGic™Beads Streptavidin is not explosive.

6. Accidental Release Measures

Procedures to be followed in case of a leak or spill

For small spills of solution, dilute with water and mop up. For large spills, contain and collect spillage by a non-combustible adsorbent and follow national and local regulations for disposal of the spill. Avoid spreading the product as much as possible.

7. Handling and Storage

Handling procedures

Put on appropriate protective equipment, do not ingest. Avoid contact with eyes skin and clothing. Avoid breathing vapors and dust. Use only with adequate ventilation. Store and use away from heat, sparks and open fire. Protect from electrostatic discharges.

Storage requirements

Store cooled and protected from light.

8. Exposure Controls/Personal Protection

Personal protective equipment to be used

Usual protection of all personnel using the product (gloves and eyeglasses).

9. Physical and Chemical Properties

Physical state

MAGic™Beads Streptavidin is suspension of solids in water-ethanol mixture.

Odor and appearance

MAGic™Beads Streptavidin solution has a sweet alcohol odor. It is a suspension of black particles.

Specific gravity

Approximately 1kg/liter

Vapor pressure

No data available

Evaporation rate

No data available

Boiling point

Not determined

Freezing point/melting point

No data available

pH

Near neutral pH

10. Stability and Reactivity

Conditions under which the product is chemically unstable

None known

Name of any substance or class of substance with which the product is incompatible

None known

Conditions of reactivity

MAGic™Beads Streptavidin is not reactive

Hazardous decomposition products

Decomposition products should not be produced at specified storage conditions.

11. Toxicological Information

Irritancy

Repeated contact with skin may cause dryness and cracking of skin.

Sensitization

No studies have been performed on sensitization.

Carcinogenicity

No carcinogenicity studies have been conducted.

Reproductive toxicity

No data available

Teratogenicity

No studies on teratogenicity have been conducted

Mutagenicity

No studies on mutagenicity have been performed

Name of toxicologically synergistic products

None known

12. Ecological Information

Toxicity

Product/ingredient name	Result	Species	Exposure
Ethanol	Acute EC50>100ppm fresh water	Daphnia	48 hours
	Acute LC50 25500 µg/ml marine water	Crustaceans,	48 hours
	Acute LC50 42000 µg/ml fresh water	Fish	4 days
	Chronic NOEC <6.3 g/liter	Daphnia	48 hours
MAGic™Beads Streptavidin	Not studied		

Degradability

Product/ingredient name	Test	Result
Ethanol	-	100%-Readily-20 days
MAGic™Beads Streptavidin	-	Not tested

13. Disposal Considerations

Waste disposal

Generation of waste should be avoided as much as possible. Avoid spreading waste. Disposal or recycling of waste should agree with Environmental Regulations, local or national. Containers should not be reused but recycled after thorough rinse with water.

Within the present knowledge of MAGic BioProcessing (Lab-on-a-Bead AB), MAGic™Beads Streptavidin is not classified as dangerous waste according to the EU directive 91/689/EEG

14. Transport Information

International directives for transportation

RID/ADR

Non-hazardous for road transport

IMDG

Non-hazardous for sea transport

IATA

Non-hazardous for air transport.

According to IATA Special Provision A 58, aqueous solutions containing 24% or less of ethanol is not subject to these regulations.

Special shipping information

None

15. Regulatory Information

This document complies with Controlled Products Regulations and the MSDS contains all the information required by those regulations.

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVE 67/548/EEC

INDICATION OF DANGER

R-PHRASES: 10

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVE EC 1272/2008(CLP)

INDICATION OF DANGER

H226

Caution: Product not yet fully tested, use protection as directed in section 7

16. Other Information

WARRANTY

The above information is believed to be correct but does not claim to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions. It does not represent any guarantee of the properties of the product. MAGic BioProcessing (Lab-on-a-Bead AB) shall not be held liable for any damage resulting from handling or from contact with the above product.

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