Safety Data Sheet (SDS)

Prepared in accordance with Regulation (EC) No. 1907/2006 as amended by Regulation (EC) No. 2020/878 and Regulation (EU) No. 1272/2008

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

416 003
Maltose binding protein, affinity purified
50 µg

Pure substance/mixture:	Mixture

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

Recommended use:	Lyophilized preparation containing proteins or peptides for research use only. Intended for reconstitution with water according to the product instructions.
Uses advised against:	Not for therapeutic or diagnostic use in humans or animals

1.3. Details of the supplier of the safety data sheet

Manufacturer

Synaptic Systems GmbH
Rudolf-Wissell Str. 28a
37079 Goettingen
Germany

Tel:	+49 (0) 551 50556-0
E-Mail:	sales@sysy.com

1.4. Emergency telephone number

Tel CHEMTREC ®:	1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Not classified as hazardous substance/mixture based on available composition information.

2.2. Label elements

No label elements required for the mixture as supplied, based on current classification assessment.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Chemical name	CAS-No	EC-No	Classification according to EG No. 1272/2008 (CLP)	Concentration % (w/w)
Potassium dihydrogen phosphate (KH_2PO_4)	7778-77-0	231-931-4	not classified	0.6% (w/w)
di-Sodium hydrogen phosphate (Na_2HPO_4)	7558-79-4	231-448-7	not classified	3.3% (w(w)
Sodium chloride (NaCl)	7647-14-5	231-598-3	not classified	34.1% (w/w)
Potassium chloride	7447-40-7	231-211-8	not classified	0.5% (w/w)

For the text of the H- and EUH-phrases, see Section 16

Estimation of Acute Toxicity

If no LD50/LC50 data are available or do not correspond to the classification category, the corresponding conversion factor from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD 50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 (4 h) Dust/mist - mg/L	Inhalation LC50 (4 h) Vapor - mg/L	Inhalation LC50 (4 h) Gas - ppm
Potassium dihydrogen phosphate (KH_2PO_4)	4.640	>2.000	no data available	no data available	no data available
di-Sodium hydrogen phosphate (Na_2HPO_4)	>2.000	>2.000	no data available	no data available	no data available
Sodium chloride (NaCl)	3.000	>10.000	no data available	no data available	no data available
Potassium chloride	2.600	no data available	no data available	no data available	no data available

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

- Remove exposed person to fresh air and keep warm and at rest in a position comfortable for breathing.

Skin	• Remove contaminated clothing and wash affected area with soap and water.
Eye	• In case of contact with eyes, irrigate with room-temperature water or eyewash solution for several minutes, occasionally lifting eyelids. Seek medical advice if irritation persists.
Ingestion	• If swallowed, rinse mouth thoroughly and give water to drink.

4.2 Most important symptoms and effects, both acute and delayed

No adverse effects have been identified.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptoms as they occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media	• **Suitable:** Use extinguishing media appropriate to cause of the fire, and the surroundings. Water spray, carbon dioxide and dry-chemical powder are suitable. • **Unsuitable:** Not available
5.2 Special hazards arising from the substance or mixture	• The product is a lyophilized powder, and is not classified as flammable.
5.3 Advice for firefighters	• Firefighters should wear an approved self-contained breathing apparatus and full protective clothing

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	• Wear personal protection (see Section 8). Product is supplied very small volumes (< 1 ml) in a glass vial, and does not pose a health or environmental hazard during foreseeable use. • Follow prescribed procedures for responding to large spills.
6.2 Environmental precautions	• No environmental hazard from foreseen use. • For large spills, prevent product from entering water courses or drainage system by absorption with inert material.
6.3 Methods and material for containment and cleaning up	• Clean up spill as soon as possible. Collect plastic vials. • For small quantities of spilt product, wipe off with cloth or paper. • For larger quantities, absorb with an inert material such as cloth, or sand. Wash contaminated surfaces with water • and detergent, and collect waste, washings, and contaminated materials for safe disposal.

6.4 Reference to other sections	• For recommended personal protective equipment, see Section 8. • For disposal considerations, see Section 12.

SECTION 7: Handling and storage

7.1 Precautions for safe handling	• Use with adequate ventilation • Avoid creating dust • Avoid contact with skin, eyes, and clothing • Do not eat, drink, or smoke when using this product • Keep away from acids • Avoid disposal into metal plumbing systems containing copper or lead
7.2 Conditions for safe storage, including any incompatibilities	• Store tightly closed in original container • Store in a cool, dry, well-ventilated place • Protect from moisture • Keep away from acids • Store according to manufacturer's recommended temperature conditions
7.3 Specific end use(s)	• For laboratory/research use only. • Not for diagnostic or therapeutic use in humans or animals.

SECTION 8: Exposure control/personal protection

8.1 Control parameters

8.1 Control parameters	• No specific EU occupational exposure limit identified here for the mixture as such. • Follow good laboratory practice.
8.2 Exposure controls	• **Appropriate engineering controls:** Use in a fume hood or in areas with good general ventilation. • **Eye/face protection:** Safety glasses or chemical safety goggles • **Skin protection:** Protective laboratory gloves (e.g. nitrile) and Lab coat or suitable protective clothing • **Respiratory protection**: Normally not required under intended conditions of use. If dust is generated, use suitable particulate respiratory protection. • **Hygiene measures:** Wash hands after handling. Remove contaminated clothing and wash before reuse. • **Environmental exposure controls:** Prevent release to drains and the environment.

SECTION : Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid, powder
Colour	White
Odour	Odorless
Melting/freezing point	Not available
Boiling point or initial boiling point and boiling range	Not available
Flammability	Not available
Lower and upper explosion limit	Not available
Flash point	Not available
Auto-ignition temp.	Not available
Decomposition temp.	Not available
pH	Not available
Kinematic viscosity	Not available
Solubility	Freely soluble in water
Partition coeff. n-octanol/water (log value)	Not available
Vapour pressure	Not available
Density or rel. density	Not available
Relative vapour density	Not available
Particle characteristics	Not available

9.2 Other Information

Not expected to meet the criteria for classification as explosive or oxidising

SECTION 10: Stability and reactivity

10.1 Reactivity	• Not availabe
10.2 Chemical stability	• Stable under ambient conditions
10.3 ossibility of hazardous reactions	• Not available
10.4 Conditions to avoid	• Avoid storage at temperatures above 25 °C.
10.5 Incompatible materials	• Not available
10.6 Hazardous decomposition products	• Not available

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	• Based on available data, the classification criteria are not met.

Skin corrosion/irritation	• Based on available data, the classification criteria are not met.
Serious eye damage/irritation	• Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	• Based on available data, the classification criteria are not met.
Germ cell mutagenicity	• Based on available data, the classification criteria are not met.
Carcinogenicity	• Based on available data, the classification criteria are not met.
Reproductive toxicity	• Based on available data, the classification criteria are not met.
STOT-single exposure	• Based on available data, the classification criteria are not met.
STOT-repeated exposure	• Based on available data, the classification criteria are not met.
Aspiration hazard	• Not applicable to solid lyophilised mixture.

11.2 Information on likely routes of exposure

Inhalation of dust, ingestion, skin contact, eye contact

11.3 Symptoms related to physical, chemical and toxicological characteristics

Possible irritation.

SECTION 12: Ecological information

12.1 Toxicity	• No ingredient classified as toxic.
12.2 Persistence and degradability	• Not available
12.3 Bioaccumulative potential	• Not available
12.4 Mobility in soil	• Not available
12.5 Results of PBT and vPvB assessment	• No ingredient classified as PBT or vPvB.
12.6 Endocrine disrupting properties	• No ingredient classified for endocrine disrupting properties.
12.7 Other adverse effects	• Not classified as hazardous to the ozone layer.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local, regional, national, and international regulations.

SECTION 14: Transport information

14.1 UN Number	• Not classified as dangerous goods for transport.
14.2 UN proper shipping name	• Not regulated as dangerous goods based on current draft assessment.
14.3 Transport hazard class(es)	• Not assigned
14.4 Packing group	• Not assigned
14.5 Environmental hazards	• Not regulated as dangerous goods
14.6 Special precautions for user	• Not available
14.7 Maritime transport in bulk according to IMO instruments	• Not applicable

SECTION 15: Regulatory information

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

This Safety Data Sheet has been prepared in accordance with applicable requirements of Regulation (EC) No 1907/2006 (REACH), as amended, and Regulation (EC) No 1272/2008 (CLP), as amended.

Further national regulations may apply.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other info

16.1 Revisions	This version 1.0 is formatted according to EU Regulation 2020/878.
16.2 References	Search for chemicals; available at the European Chemicals Agency website: http://echa.europa.eu/.
16.3 Basis of classification	The mixture is classified on the basis of available information on the ingredients.
16.4 List of hazard statements	-

Additional information

This product is supplied as a lyophilized mixture and is intended to be reconstituted with water before use.
This product is **not intended for diagnostic or therapeutic use in humans or animals**.

Disclaimer: The above information is believed to be correct but is only to be used as a guide for experienced personnel. Proteintech Group, Inc. shall not
be liable for any damage resulting from the handling of or contact with the above product.

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