

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Version: 1.5

Creation Date: 2017/07/20

Revision Date: 2019/01/08

1. Identification

Product identifier

Product name	Dual Range™ BCA Protein Assay Kit
Product number	BC03-100 / BC03-250 / BC03-500
Recommended use	Biochemical reagent for research use only

Details of the supplier of the safety data sheet

Manufacture / Supplier	Energenisis Biomedical Co., Ltd.
Address	6F-3, No.21, Ln. 583, Ruiguang Rd., Neihu Dist. Taipei City 114, Taiwan
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2. Hazard(s) identification

Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [CLP]

Acute Tox. 4	H302
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictogram



Signal word

Warning

Hazard statements

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary statements

P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor.
P302 + P352	IF ON SKIN: Wash with plenty water.

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P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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.

3. Composition/information on ingredients

Substance/mixture	Mixture	
Component	Description	Content
Reagent A	contains Bicinchoninic acid	BC03-100: 100 mL BC03-250: 250 mL BC03-500: 500 mL
Reagent B	contains Copper sulfate	BC03-100: 2 mL BC03-250: 12 mL BC03-500: 12 mL
Bovine Serum Albumin Standard		BC03-100: 1 mL x 1 BC03-250: 1 mL x 4 BC03-500: 1 mL x 10

CAS No. EC No. Index No.	Component Name Synonyms	1272/2008 (CLP)	Percent
979-88-4 629-761-2 —	Bicinchoninic acid	Skin Irrit. 2; H315 Eye Irrit. 2; H319	1-3
7758-99-8 231-847-6 029-004-00-0	Copper sulfate	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	1-5

Additional information

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

Description of first aid measures

Eye Contact

Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring

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Inhalation	to the uncontaminated eye. Remove contact lenses, clean before re-use. Get immediate medical attention. Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.
Skin Contact	Wash with soap and water. Remove contaminated clothing and launder immediately, and discard contaminated leather goods, and wash before re-use. Get medical attention immediately if irritation develops or persists.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water or milk to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention immediately.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
Indication of any immediate medical attention and special treatment needed	No data available

5. Firefighting measures

Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture No data available

Advice for fire-fighters Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and material for containment and cleaning up Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections For disposal see section 13.

7. Handling and storage

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Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.
Conditions for safe storage, including any incompatibilities	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature: 2-8 °C
Specific end use(s)	Apart from the uses mentioned in section 1 no other specific uses are stipulated.

8. Exposure controls/personal protection

Control parameters Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Component Name CAS No.	PEL-TWA	PEL-STEL	PEL-Ceiling	BEIs
Bicinchoninic acid 979-88-4	5 mg/m ³	—	—	—
Copper sulfate 7758-99-8	1 mg/m ³	2 mg/m ³	—	—

Exposure controls

Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment	
Eye protection	Wear chemical safety goggles. An eye wash station must be available where this product is used.
Skin and body protection	Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
Hand protection	Wear chemically resistant gloves, Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Have a safety shower available.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

	Form	Color
Reagent A	liquid	clear
Reagent B	liquid	blue
Bovine Serum Albumin Standard	liquid	clear

Odour

No data available

Odour Threshold

No data available

pH

No data available

Melting point/freezing point

No data available

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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
Lower and upper explosive (flammable) limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	No data available
Solubility in water	No data available
Partition coefficient: n-octanol/ water (log Kow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. Stability and reactivity

Reactivity	No data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	No data available
Incompatible materials	Strong bases, Powdered metals
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Information on toxicological effects No data available

Acute toxicity

Component Name CAS No.	Result	Species	Dose	Exposure
Copper sulfate 7758-99-8	LD50 Oral	Rat	300 mg/kg	—
	LD50 Dermal	Rat	>2,000 mg/kg	—

Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available

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Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	No data available

12. Ecological information

Toxicity

Component Name CAS No.	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Copper sulfate 7758-99-8	—	Daphnia magna EC50 0.0058 - 0.0073 mg/L (48 h) Daphnia magna EC50 0.147 - 0.227 mg/L (48 h)	—	—	—

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Results of PBT and vPvB assessment 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.

Other adverse effects No data available

13. Disposal considerations

Waste treatment methods

Product	Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	Dispose of as unused product.

14. Transport information

IATA / ADR / RID / IMDG	Classified as dangerous in the meaning of transport regulations.
UN number	—
UN proper shipping name	Not dangerous goods
Transport hazard class(es)	—
Packaging group	—
Environmental hazards	no
Special precautions for user	No data available

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Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	No data available
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15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Chemical safety assessment	No data available

16. Other information

Abbreviations	
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
BEIs	Biological exposure indices
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association-Dangerous Goods Regulations
CAS	Chemical Abstracts Service (division of the American Chemical Society)
LD50	Lethal dose, 50 percent
OSHA	Occupational Health and Safety Administration
PEL	Permissible Exposure Limit
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
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