Safety Data Sheet

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

Creation Date: 2016/08/11
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1. Identification

Product identifier

Product name	VisColor™ Full Range Pre-Stained Protein Marker
Product number	VC03-25S / VC03-250 / VC03-500
Recommended use	Biochemical reagent for research use only

Details of the supplier of the safety data sheet

Manufacture / Supplier	Energenesis Biomedical Co., Ltd.
Address	6F-3, No.21, Ln. 583, Ruiguang Rd., Neihu Dist. Taipei City 114, Taiwan
Phone	+886-2-2627-0835
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Emergency telephone number +886-2-2627-0835

2. Hazard(s) identification

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

Acute Tox. 4	H302
Acute Tox. 4	H312
Skin Irrit. 2	H315
Eye Irrit. 2	H319

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

Hazard pictogram

Signal word Warning

Hazard statements

H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation

Precautionary statements

P264	Wash hand thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/…if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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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.
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

CAS No. EC No. Index No.	Component Name Synonyms	1272/2008 (CLP)	Percent
56-81-5 200-289-5 —	Glycerol		10-25
6992-39-8 230-260-2 —	[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]ammonium dihydrogen phosphate		1-2
151-21-3 205-788-1 —	Sodium dodecyl sulphate	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319	1-3
57-13-6 200-315-5 —	Urea		<25

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 water as a precaution
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Skin Contact	Wash off with soap and plenty of water.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water

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

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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

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: -20 °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
Glycerol 56-81-5	10 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	

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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: liquid Color: blue
Odour	Odorless
Odour Threshold	No data available
pH	7.5
Melting point/freezing point	No data available
Initial boiling point and boiling range	100 °C
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	No data available

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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
Glycerol 56-81-5	LD50 Dermal LD50 Oral	Rat Rat	21,900 mg/kg 12,600 mg/kg	–
Sodium dodecyl sulphate 151-21-3	LD50 Dermal LD50 Oral	Rabbit Rat	580 mg/kg 1,288 mg/kg	– –

Skin corrosion/irritation

Component Name CAS No.	Result	Species	Exposure
Sodium dodecyl sulphate 151-21-3	Eyes - Moderate irritant Skin - Mild irritant	Rabbit Rabbit	10 mg (standard Draize) 25 mg (standard Draize)

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
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
Sodium dodecyl sulphate 151-21-3	Desmodesmus subspicatus EC50 53 mg/L (72 h) Desmodesmus subspicatus EC50 30 - 100 mg/L (96 h) Pseudokirchneriella subcapitata EC50 3.59 – 15.6 mg/L (96 h)	Daphnia magna EC50 1.8 mg/L (48 h)	Pimephales promelas LC50 10.2 - 22.5 mg/L (96 h semi-static 1) Poecilia reticulata LC50 10.8 - 16.6 mg/L (96 h static 1) Poecilia reticulata LC50 13.5 - 18.3 mg/L (96 h semi-static 1) Pimephales promelas LC50 15 - 18.9 mg/L (96 h static 1)	–	1.6

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	Pseudokirchneriella subcapitata EC50 117 mg/L (96 h)		Pimephales promelas LC50 22.1 - 22.8 mg/L (96 h static 1) Lepomis macrochirus LC50 4.06 - 5.75 mg/L (96 h static 1) Lepomis macrochirus LC50 4.2 - 4.8 mg/L (96 h flow-through 1) Oncorhynchus mykiss LC50 4.3 - 8.5 mg/L (96 h static 1) Pimephales promelas LC50 5.8 - 7.5 mg/L (96 h static 1) Pimephales promelas LC50 6.2 - 9.6 mg/L (96 h 1) Pimephales promelas LC50 8 - 12.5 mg/L (96 h static 1) Brachydanio rerio LC50 9.9 - 20.1 mg/L (96 h semi-static 1) Cyprinus carpio LC50 1.31 mg/L (96 h semi-static 1) Oncorhynchus mykiss LC50 4.2 mg/L (96 h 1) Lepomis macrochirus LC50 4.5 mg/L (96 h 1) Oncorhynchus mykiss LC50 4.62 mg/L (96 h flow-through 1) Brachydanio rerio LC50 7.97 mg/L (96 h flow-through 1)		

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

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

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
Acute Tox.	Acute toxicity
BEIs	Biological exposure indices
Eye Irrit.	Serious eye damage/eye irritation
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association-Dangerous Goods Regulations
CAS	Chemical Abstracts Service (division of the American Chemical Society)
OSHA	Occupational Health and Safety Administration
PEL	Permissible Exposure Limit
RID	Regulations Concerning the International Carriage of Dangerous Godds by Rail
Skin Irrit.	Skin corrosion/irritation
STEL	Short Term Exposure Limit

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TWA	Time Weighted Average
Further information	The above information is believed to be correct but does not purport 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 with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Energenesis Biomedical Corporation shall not be held liable for any damage resulting from handling or from contact with the above product.