

Creation Date: 2017/09/11 Revision Date: 2019/08/20

1. Identification				
Product identifier				
Product name	RIPA Cell Lysis Buffer (5X)			
Product number	RP05-10 / RP05-100 / RP05-2S / RP05-500			
Recommended use	Biochemical reagent for research use only			
	Discretifical 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			
Fax	+886-2-2627-0836			
Emergency telephone number	+886-2-2627-0835			
2. Hazard(s) identification				
Classification of the substance or	Classification according to Regulation (EC) No 1272/2008 [CLP]			
mixture				
Acute Tox. 4	H302, H312			
Skin Irrit. 2	H315			
Eye Irrit. 2	H319			
Aquatic Chronic 2	H411			
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			
H411	Toxic to aquatic life with long lasting effects			
Precautionary statements				
P264	Wash hand thoroughly after handling.			
P270	Do not eat, drink or smoke when using this product.			
P273	Avoid release to the environment.			
P280	Wear protective gloves/protective clothing.			
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/if you feel			
P302 + P352	unwell. IF ON SKIN: Wash with plenty of soap and 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.
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.

Substance/mixture	Mixture		
CAS No. EC No. Index No.	Component Name Synonyms	1272/2008 (CLP)	Percent
7647-14-5 231-598-3 —	Sodium chloride		0.88
77-86-1 201-064-4 —	Trometamol		0.3
9016-45-9 500-024-6 —	Nonylphenol, ethoxylated	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	1
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	0.1

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			
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: 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	
Trometamol 77-86-1	5 mg/m ³	_	5 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

Appearance	Form: liquid Color: clear
Odour	No data available
Odour Threshold	No data available
рН	7.5-7.7
Melting point/freezing point	No data available
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	No data available			
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.			
11. Toxicological information				
Information on toxicological effects Acute toxicity	No data ava	ailable		
Component Name CAS No.	Result	Species	Dose	Exposure
Trometamol 77-86-1	LD50 Dermal LD50 Oral	Rat Rat	>5,000 mg/kg >5,000 mg/kg	
Nonylphenol, ethoxylated 9016-45-9	LD50 Dermal LD50 Oral	Rabbitt Rat	2,000-2,990 mg/kg 960-3,980 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	Eyes - Moderate irritant	Rabbit	10 mg (standard Draize)
151-21-3	Skin - Mild irritant	Rabbit	25 mg (standard Draize)

Serious eye damage/eye irritation Respiratory or skin sensitisation	No data available 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	Microto x Data	log Pow
Nonylphenol, ethoxylated 9016-45-9	Scenedesmu s quadricauda 17 mg/L Lemna minor 15 mg/L	Daphnia magna EC50 9.3 - 21.4 mg/L Gammaru s pulex	Pimephales promelas LC50 3.8-7.7 mg/L Poecilia reticulate LC50 16.4 mg/L (48 h)	various bacteri a EC50 1000 mg/L	_



		-				
			EC50 20.9 mg/L			
	Sodium dodecyl sulphate 151-21-3	Desmodesmu s subspicatus EC50 53 mg/L (72 h) Desmodesmu s subspicatus EC50 30 - 100 mg/L (96 h) Pseudokirchn eriella subcapitata EC50 3.59 – 15.6 mg/L (96 h) Pseudokirchn eriella subcapitata EC50 117 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) 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 static 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) Dencorhynchus mykiss LC50 4.62 mg/L (96 h flow-through 1) Brachydanio rerio LC50 7.97 mg/L (96 h flow-through 1)		1.6
Ρ	Persistence and degradability No data available					
В	ioaccumulative pote	accumulative 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.				
0	ther adverse effects		No data avai	lable		



Waste treatment methods	
Product	Offer surplus and non-recyclable solutions to a licensed disposal
Contaminated packaging	company. Dispose of as unused product.
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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
Aquatic Chronic	Hazardous to the aquatic environment, long-term hazard
BEIs	Biological exposure indices
Eye Irrit.	Serious eye damage/eye irritation
IMDG	International Maritime Dangerous Goods
ΙΑΤΑ	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
TWA	Time Weighted Average
Further information	Copyright 2019 Energenesis Biomedical Co., Ltd License granted to make unlimited paper copies for internal use only. 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.