

Safety Data Sheet

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

Version: 1.5

Creation Date: 2017/03/16

Revision date: 2019/08/20

1. Identification

Product identifier

Product name	ExtractPRO™ Protein Extraction Reagent
Product number	EP05-2S / EP05-30
Recommended use	Biochemical reagent for research use only

Details of the supplier of the safety data sheet

Manufacture / Supplier	Energenesis Biomedical Co., Ltd.
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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. 3	H301, H311, H331
Skin Corr. 1B	H314
Eye Dam. 1	H318
Muta. 2	H341
STOT SE 2	H373
Aquatic Chronic 3	H412

Label elements

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

Hazard pictogram



Signal word

Danger

Hazard statements

H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H341	Suspected of causing genetic defects
H373	May cause damage to organs
H412	Harmful to aquatic life with long lasting effects

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dusts or mists.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

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P264	Wash hand thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405	Store locked up.
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
108-95-2 203-632-7 604-001-00-2	Phenol	Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Acute Tox. 3, H331 Muta. 2, H341 STOT SE 2, H373	40-60
593-84-0 209-812-1 —	Guanidinium thiocyanate	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1C, H314 Eye Dam. 1, H318 Acute Tox. 4, H332 Aquatic Chronic 3, H412	10-30

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 to the uncontaminated eye. Remove contact lenses, clean before re-use. Get immediate medical attention.

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Inhalation	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 2.2) 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 2.2.

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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 1.2 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
Phenol 108-95-2	5 ppm 19 mg/m ³	15 ppm	15.6 ppm 60 mg/m ³	250mg (Urine)

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: liquid, Color: clear
Odour	No data available
Odour Threshold	No data available
pH	No data available
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

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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
Phenol 108-95-2	LD50 Dermal	Rabbit	630 mg/kg	—
	LD50 Oral	Rat	340 mg/kg	—
Guanidinium thiocyanate 593-84-0	LD50 Dermal	—	—	—
	LD50 Oral	Rat	571 mg/kg	—

Skin corrosion/irritation

Component Name CAS No.	Result	Species	Exposure
Phenol 108-95-2	Eyes - Moderate irritant	Rabbit	5 mg (standard Draize)
	Skin - Moderate irritant	Rabbit	100 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

Component Name CAS No.	ACGIH	IARC	NTP	OSHA
Phenol 108-95-2	—	Group 3	—	—

Reproductive toxicity No data available

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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
Phenol 108-95-2	Desmodesmus subspicatus EC50 187-279 mg/L (72 h) Pseudokirchneriella subcapitata EC50 46.42 mg/L (96 h)	Daphnia magna EC50 4.24 - 10.7 mg/L (48 h) Daphnia magna EC50 10.2 - 15.5 mg/L (48 h)	—	—	1.47

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	1760
UN proper shipping name	Corrosive liquid, n.o.s. (phenol - guanidine thiocyanate solution)
Transport hazard class(es)	8
Packaging group	II
Environmental hazards	yes

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Special precautions for user

Danger code (Kemler): No data available
EMS Number No data available

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available

UN "Model Regulation"

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

ACGIH	American Conference of Governmental Industrial Hygienists
Acute Tox.	Acute toxicity
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
Aquatic Chronic	Hazardous to the aquatic environment, long-term hazard
BEIs	Biological exposure indices
CAS	Chemical Abstracts Service (division of the American Chemical Society)
Eye Dam.	Serious eye damage/eye irritation
IMDG	International Maritime Dangerous Goods
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association-Dangerous Goods Regulations
LD50	Lethal dose, 50 percent
Muta.	Germ cell mutagenicity
NTP	National Toxicology Program, U.S. Department of Health and Human Services
OSHA	Occupational Health and Safety Administration
PEL	Permissible Exposure Limit
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
Skin Corr.	Skin corrosion/irritation
STEL	Short Term Exposure Limit
STOT SE	Specific target organ toxicity, repeated exposure
TWA	Time Weighted Average

Further information

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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. Energenisis Biomedical Corporation shall not be held liable for any damage resulting from handling or from contact with the above product.