Safety Data Sheet

REVISION: 02/28/2022

SECTION 1: Product and Company Identification

Identification of the substance or mixture

Product Name: EasyPrep Yeast Protein Extraction Kit
Catalog #: 10455

Company Identification

Cepham Life Sciences Inc.
11830 W Market Place, Suite K
Fulton, MD 20759
USA
Toll Free: 1-800-257-1565
Phone: 410-636-4954

24-hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Toll Free: 1-800-424-9300/ +1 703-527-3887 CCN 1010970

For Research Use Only. Not for use in diagnostic procedures.

SECTION 2: Hazards identification

OSHA/HCS status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B

GHS label elements

Signal Word Warning
Hazard statements Causes eye irritation

Precautionary statements

Prevention Wear eye or face protection. Wash hands thoroughly after handling.
Response IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage Not applicable
Disposal Not applicable

Hazards not otherwise classified None known.

SECTION 3: Composition / Information on Ingredients

Substance / mixture: Mixture

Other means of identification: Not available

CAS number / other identifiers

CAS number Not applicable

Ingredient name	%	CAS number
glycerol	7 – 10	56-81-5
disodium hydrogenorthophosphate	1 – 3	7558-79-4

SECTION 4: First Aid Measures

Description of necessary first aid measures

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion Wash out mouth with water. Remove dentures if any. 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 to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact Causes eye irritation

Inhalation No known significant effects or critical hazards

Skin contact No known significant effects or critical hazards

Ingestion May be irritating to mouth, throat and stomach

Over-exposure signs / symptoms

Eye contact Adverse symptoms may include the following:
- Irritation
- Watering
- Redness

Inhalation No specific data

Skin contact No specific data

Ingestion No specific data

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

SECTION 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media None known

Specific hazards arising from the chemical In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
phosphorus oxides
metal oxide/oxides

Special protective actions for fire-fighters Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7: Handling & Storage

Precautions for safe handling

Protective measures Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: Exposure Controls / Personal Protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Glycerol	**ACGIH (United States).** TWA: 10 mg/m³ **OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust **OSHA PEL (United States).** TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States).** TWA: 10 mg/m³ 8 hours. Form: Total particulates **OSHA PEL (United States). Notes: Respirable** TWA: 15 mg/m³ 8 hours.

Appropriate engineering controls Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking

and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye / face protection Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9: Physical and Chemical Properties

Appearance

Physical state	Liquid.
Color	Colorless
Odor	Not available
Odor threshold	Not available
pH	7.4
Melting point	Not available
Boiling point	Not available
Flash point	[Product does not sustain combustion]
Burning time	Not available
Burning rate	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower and upper explosive (flammable) limits	Not available
Vapor pressure	Not available
Vapor density	Not available
Relative density	Not available
Solubility	Easily soluble in the following materials: cold water and hot water.
Solubility in water	Not available
Partition coefficient: noctanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
SADT	Not available
Viscosity	Not available

SECTION 10: Stability & Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No specific data

Incompatible materials: No specific data

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological Information

Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Glycerol	LD50 Dermal	Rat	>21900 mg/kg	-
	LD50 Oral	Rat	12600 mg/kg	-
Disodium hydrogenorthophosphate	LD50 Oral	Rat	17000 mg/kg	-

Irritation / Corrosion

Product/ingredient name	Results	Species	Score	Exposure	Observation
Glycerol	Eyes – Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin – Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Disodium hydrogenorthophosphate	Eyes – Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin – Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization
Not available

Mutagenicity
Not available

Carcinogenicity
Not available

Classification

Product / ingredient name	OSHA	IARC	NTP
Glycerol	None.	-	-
Disodium hydrogenorthophosphate	None.	-	-

Reproductive toxicity
Not available.

Teratogenicity
Not available.

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on the likely routes of exposure
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact: Causes eye irritation
Inhalation: No known significant effects or critical hazards
Skin contact: No known significant effects or critical hazards
Ingestion May be irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact Adverse symptoms may include the following:
irritation
watering
redness
Inhalation: No specific data
Skin contact: No specific data
Ingestion: No specific data

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: Not available.
Potential delayed effects: Not available.

Long term exposure

Potential immediate effects: Not available.
Potential delayed effects: Not available.

Potential chronic health effects

Product / ingredient name	Result	Species	Dose	Exposure
Glycerol	Sub-chronic TD50 Oral	Rat	16800 mg/kg	28 days continuous
	Sub-chronic TD50 Oral	Rat	96 g/kg	30 days intermittent

General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

SECTION 12: Ecological Information

Toxicity

Product / ingredient name	Result	Species	Exposure
Glycerol	Acute LC50 51 to 57 ml/L Fresh water	Fish – Oncorhynchus mykiss	96 hours
Disodium hydrogenorthophosphate	Acute LC50 3580000 ug/l Fresh water	Daphnia – daphnia magna	48 hours

Persistence and degradability

Product / ingredient name	Aquatic half-life	Photolysis	Biodegradability
Glycerol	-	-	Readily

Bioaccumulative potential

Product / ingredient name	LogPow	BCF	Potential
Glycerol	-1.76	-	Low
Disodium Hydrogenorthophosphate	-5.8	-	Low

Mobility in soil

Soil/water partition coefficient (KOC): Not available

Other adverse effects: No known significant effects or critical hazards.

SECTION 13: Disposal Considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport Information

	DOT Classification	IATA
UN number	Not regulated.	Not regulated.
UN proper shipping name	-	-
Transport hazard class(es)	-	-
Packing group	-	-
Environmental hazards	No.	No.
Additional information	-	-

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

SECTION 15: Regulatory Information

U.S. Federal regulations: **TSCA 8(a) CD Exempt/Partial exemption:** Not determined
United States inventory (TSCA 8b): Not determined
Clean Water Act (CWA) 311: disodium hydrogenorthophosphate

Clean Air Act Section 112: (b) Hazardous Air Pollutants (HAPs) Not listed

Clean Air Act Section 602: Class I Substances Not listed

Clean Air Act Section 602: Class II Substances Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302 / 304

Composition / information on ingredients

No products were found.

SARA 304 RQ: Not applicable.

Sara 311 / 312

Classification: Immediate (acute) health hazard

Composition / information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Glycerol	7-10	No.	No.	No.	Yes.	No.
Disodium hydrogenorthophosphate	1-3	No.	No.	No.	Yes.	No.

State regulations

Massachusetts: The following components are listed: GLYCERINE MIST; PHOSPHORIC ACID, DISODIUM SALT

New York: The following components are listed: Sodium phosphate, dibasic

New Jersey: The following components are listed: Glycerin; SODIUM PHOSPHATE, DIBASIC; PHOSPHORIC ACID, DISODIUM SALT

Pennsylvania: The following components are listed: 1,2,3-PROPANETRIOL; PHOSPHORIC ACID, DISODIUM SALT

Canada inventory: Not determined.

International regulations

International lists:
Australia inventory (AICS): Not determined.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals: Not listed

Chemical Weapons Convention List Schedule II Chemicals: Not listed

Chemical Weapons Convention List Schedule III Chemicals: Not listed

SECTION 16: Other Information

Hazardous Material Information System (U.S.A.)

Health:	1
Chronic Health Hazard	
Flammability	0
Physical hazards	0

National Fire Protection Association (U.S.A.)

Health	1
Flammability	0
Instability / Reactivity	0
Special	

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