

## SECTION 1: Product and Company Identification

### Identification of the substance or mixture

**Product Name:** RIPA Lysis & Extraction Buffer  
**Catalog #:** 10456, 10456-1

### Company Identification

Cepharm 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

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

### Classification of the substance or mixture

Not classified.

### GHS label elements

**Signal Word** No signal word.  
**Hazard statements** No known significant effects or critical hazards.

### Precautionary statements

**Prevention** Not applicable.  
**Response** Not applicable.  
**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
Nonidet P-40 Substitute	0.1 - 1	9016-45-9
sodium 3- $\alpha$ ,12- $\alpha$ -dihydroxy-5- $\beta$ -cholan-24-oate	0.1 - 1	302-95-4

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First Aid Measures

### Description of necessary first aid measures

<b>Eye contact</b>	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs
<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	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 to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.

### Over-exposure signs / symptoms

<b>Eye contact</b>	No specific data
<b>Inhalation</b>	No specific data
<b>Skin contact</b>	No specific data
<b>Ingestion</b>	No specific data

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

<b>Notes to physician</b>	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	No specific treatment.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

## SECTION 5: Firefighting Measures

### Extinguishing media

<b>Suitable extinguishing media</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	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  
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

<b>For non-emergency personnel</b>	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.
<b>For emergency responders</b>	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".
<b>Environmental precautions</b>	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

<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.
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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).

#### **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 between the following temperatures: 2 to 8°C (35.6 to 46.4°F). 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**

None.

#### **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.

#### **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. [Clear sparkling liquid.]
Color	Colorless
Odor	Odorless
Odor threshold	Not available
pH	7.3 to 7.9
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
Nonidet P-40 Substitute	LD50 Oral	Rat	1310 mg/kg	-
Sodium 3- $\alpha$ ,12- $\alpha$ -dihydroxy-5- $\beta$ -cholan-24-oate	LD50 Oral	Mouse	1050 mg/kg	-
	LD50 Oral	Rat	1370 mg/kg	-
	LD50 Oral	Rat	1370 mg/kg	-

**Conclusion/Summary:** To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.

#### Irritation / Corrosion

Not available.

#### Sensitization

Not available

#### Mutagenicity

Not available

#### Carcinogenicity

Not available

#### Classification

Product / ingredient name	OSHA	IARC	NTP
sodium 3- $\alpha$ ,12- $\alpha$ -dihydroxy-5- $\beta$ -cholan-24-oate	None.	-	-
		-	-

**Reproductive toxicity**

Not available.

**Teratogenicity**

Not available.

**Specific target organ toxicity (single exposure)**

Name	Category	Route of exposure	Target organs
Nonidet P-40 Substitute	Category 3	Not applicable	Respiratory tract irritation
sodium 3- $\alpha$ ,12- $\alpha$ -dihydroxy-5- $\beta$ -cholan-24-oate	Category 3	Not applicable	Respiratory tract irritation

**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**

<b>Eye contact:</b>	No known significant effects or critical hazards
<b>Inhalation:</b>	No known significant effects or critical hazards
<b>Skin contact:</b>	No known significant effects or critical hazards
<b>Ingestion</b>	No known significant effects or critical hazards

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Eye contact</b>	No specific data.
<b>Inhalation:</b>	No specific data
<b>Skin contact:</b>	No specific data
<b>Ingestion:</b>	No specific data

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

<b>Potential immediate effects:</b>	Not available.
<b>Potential delayed effects:</b>	Not available.

**Long term exposure**

<b>Potential immediate effects:</b>	Not available.
<b>Potential delayed effects:</b>	Not available.

**Potential chronic health effects**

Not available.

<b>General:</b>	No known significant effects or critical hazards.
<b>Carcinogenicity:</b>	No known significant effects or critical hazards.
<b>Mutagenicity:</b>	No known significant effects or critical hazards.
<b>Teratogenicity:</b>	No known significant effects or critical hazards.
<b>Developmental effects:</b>	No known significant effects or critical hazards.
<b>Fertility effects:</b>	No known significant effects or critical hazards.

**Numerical measures of toxicity****Acute toxicity estimates**

Route	ATE value
Oral	66966.4 mg/kg

**SECTION 12: Ecological Information****Toxicity**

Product / ingredient name	Result	Species	Exposure
Nonidet P-40 Substitute	Acute LC50 10800 $\mu$ g/l Marine water	Crustaceans - Pandalus montagui	48 hours
	Acute LC50 8600 to 9800 $\mu$ g/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 7200 $\mu$ g/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

**Persistence and degradability**

Product / ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nonidet P-40 Substitute	-	-	Readily

**Bioaccumulative potential**

Not available.

**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**

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

**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) PAIR: Nonidet P-40 Substitute  
TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States inventory (TSCA 8b): All components are listed or exempted.

**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:** Not applicable.

**Composition / information on ingredients**

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Nonidet P-40 Substitute	0.1 - 1	No.	No.	No.	Yes.	No.
Sodium 3- $\alpha$ ,12- $\alpha$ -dihydroxy-5- $\beta$ -cholan-24-oate	0.1 - 1	No.	No.	No.	Yes.	No.

**State regulations**

<b>Massachusetts:</b>	None of the components are listed.
<b>New York:</b>	None of the components are listed.
<b>New Jersey:</b>	The following components are listed: ALKYL PHENOL, n.o.s.
<b>Pennsylvania:</b>	None of the components are listed.
<b>Canada inventory:</b>	All components are listed or exempted.

**International regulations**

<b>International lists:</b>	<b>Australia inventory (AICS):</b> All components are listed or exempted. <b>China inventory (IECSC):</b> All components are listed or exempted. <b>Japan inventory:</b> All components are listed or exempted. <b>Korea inventory:</b> All components are listed or exempted. <b>Malaysia Inventory (EHS Register):</b> Not determined. <b>New Zealand Inventory of Chemicals (NZIoC):</b> All components are listed or exempted. <b>Philippines inventory (PICCS):</b> Not determined. <b>Taiwan inventory (CSNN):</b> Not determined.
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**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:** 0  
**Chronic Health Hazard**  
**Flammability** 0  
**Physical hazards** 0

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

**Health** 0  
**Flammability** 0  
**Instability / Reactivity** 0  
**Special**

**Disclaimer:**

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not represent any guarantee of the properties of the product. Cepham Life Sciences Incorporated and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.