

SECTION 1: Product and Company Identification

Identification of the substance or mixture

Product Name: LDH Cytotoxicity Assay Kit, Colorimetric
Catalog #: 10436, 10436-1

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.

Kit Components

Component	Size (1,000 assays)
Substrate Mix	5 Vials / Kit
Activator	2 ml / Kit
Lysis Buffer	15 ml / Kit
Assay Buffer	4 ml / Kit
Stop Solution	60 ml / Kit
LDH Positive Control	30 µl / Kit

SECTION 2: Hazards identification

Classification of the substance or mixture

Substrate Mix:

Not a hazardous substance or mixture.

Activator:

Not a hazardous substance or mixture.

Lysis Buffer:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

Assay Buffer

Not a hazardous substance or mixture.

Stop Solution

Not a hazardous substance or mixture.

LDH Positive Control

Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements

Substrate Mix:

Not a hazardous substance or mixture.

Activator:

Not a hazardous substance or mixture.

Lysis Buffer:

Pictogram

Signal word

Hazard statement(s)

H315

H318

H410

Precautionary statement(s)

P264

P273

P280

P302 + P352

P305 + P351 + P338 + P310

P332 + P313

P362

P391

P501



Danger

Causes skin irritation.

Causes serious eye damage.

Very toxic to aquatic life with long lasting effects.

Wash skin thoroughly after handling.

Avoid release to the environment.

Wear protective gloves/ eye protection/ face protection.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

If skin irritation occurs: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

Collect spillage.

Dispose of contents/ container to an approved waste disposal plant.

Assay Buffer

Not a hazardous substance or mixture.

Stop Solution

Not a hazardous substance or mixture.

LDH Positive Control

Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition / Information on Ingredients

Substrate Mix:

No components need to be disclosed according to the applicable regulations.

Activator:

No components need to be disclosed according to the applicable regulations.

Lysis Buffer:

Hazardous Components

Component	Classification	Concentration
p-tertiary-Octylphenoxy polyethyl alcohol Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
CAS-No. 9002-93-1	Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H315, H318, H410	10 – 20%

Assay Buffer

No components need to be disclosed according to the applicable regulations.

Stop Solution

Hazardous Components

Component	Classification	Concentration
Disodium hydrogenorthophosphate		
CAS-No. 7558-79-4 EC-No. 231-448-7		1-5%

LDH Positive Control

No components need to be disclosed according to the applicable regulations.

SECTION 4: First Aid Measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

SECTION 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

Stop Solution

Oxides of phosphorus, Hydrogen chloride gas, Sodium oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials 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.

SECTION 7: Handling & Storage

Precautions for safe handling

Substrate Mix

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

Keep away from sources of ignition—no smoking. Take measures to prevent the build-up electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C

SECTION 8: Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: For prolonged or repeated contact use protective gloves.

Eye protection: Chemical safety goggles

Hygiene measures: General industrial hygiene practice.

SECTION 9: Physical and Chemical Properties

Property	DMSO
Appearance	Clear Liquid
pH:	Not available
Water Solubility:	Completely miscible
Specific Gravity (g/ml):	1.1
Boiling point (°C):	189
Melting Point (°C):	18.4
Flash Point (°C):	87
Ignition Temperature (°C):	301

SECTION 10: Stability & Reactivity

Property	DMSO
Chemical stability	Stable under recommended storage conditions
Conditions to avoid:	Not available
Materials to avoid:	Acid chlorides, phosphorus halides, strong acids, strong oxidizing agents, strong reducing agents
Hazardous decomposition products:	Carbon oxides, sulfur oxides

SECTION 11: Toxicological Information

DMSO

Acute toxicity: LD50 Oral - rat - 14,500 mg/kg; LC50 Inhalation - rat - 4 h - 40250 ppm; LD50 Dermal - rabbit - > 5,000 mg/kg

Irritation and corrosion: Skin - rabbit - Mild skin irritation - 24 h; Eyes - rabbit - Mild eye irritation

Sensitization: no data available

Chronic exposure

Carcinogenicity: rat - Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

Carcinogenicity: mouse - Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Leukaemia Skin and Appendages: Other: Tumors.

IARC: 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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated

carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Genotoxicity in vitro - mouse – lymphocyte; Cytogenetic analysis

Genotoxicity in vitro - mouse – lymphocyte; Mutation in mammalian somatic cells.

Genotoxicity in vivo - rat – Intraperitoneal; Cytogenetic analysis

Genotoxicity in vivo - mouse – Intraperitoneal; DNA damage

Developmental Toxicity - mouse – Intraperitoneal; Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.; Reproductive toxicity - rat – Intraperitoneal; Effects on Fertility: Abortion.

Reproductive toxicity: rat – Intraperitoneal; Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Reproductive toxicity - rat – Subcutaneous; Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).; Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth).

Reproductive toxicity - mouse – Oral; Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

Additional Information: RTECS: PV6210000

SECTION 12: Ecological Information

DMSO

Elimination information (persistence and degradability): no data available

Ecotoxicity effects: Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 34,000 mg/l - 96 h; LC50 - Oncorhynchus mykiss (rainbow trout) - 35,000 mg/l - 96 h; Toxicity to daphnia and other aquatic invertebrates.; EC50 - Daphnia pulex (Water flea) - 27,500 mg/l
Toxicity to algae EC50 - Lepomis macrochirus (Bluegill) - > 400,000 mg/l - 96 h

Further information on ecology: no data available

SECTION 13: Disposal Considerations

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

SECTION 14: Transport Information

DMSO

DOT (US): UN-Number: 1993 Class: CBL Packing group: III; Proper shipping name: Combustible liquid, n.o.s. (Dimethyl sulfoxide); Marine pollutant: No; Poison Inhalation Hazard: No

IMDG: Not dangerous goods

IATA: Not dangerous goods

SECTION 15: Regulatory Information

DMSO

OSHA Hazards: Combustible Liquid, Target Organ Effect

DSL Status: All components of this product are on the Canadian DSL list.

SARA 302 Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components: Dimethyl sulfoxide CAS-No. 67-68-5

New Jersey Right To Know Components: Dimethyl sulfoxide CAS-No. 67-68-5

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

EU Regulations

Component	Risk Phrases	Safety Phrases
DMSO	R10, R36/37/38	S24/25, S36/37/39, S45

SECTION 16: Other Information

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.