



MATERIAL SAFETY DATA SHEET

Company	ELPIS-Biotech. Inc.
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SECTION 1. CHEMICAL INFORMATION

Product name	Overlap Cloner DNA Cloning Kit		
Cat. No.	EBK-1011		
Kit component	Overlap Cloner Enzyme Mix		20 ul
	Overlap Cloner 10x Reaction Buffer		100 ul
	Control Vector		5 µl (50 ng/µl)
	Control Insert (LacZ cDNA)		5 µl (50 ng/µl)

Product Use : Laboratory Reagent. For R&D use only. Not for drug, household or other uses.

Manufacturer/ Supplier information

Supply company : ELPIS-Biotech. Inc.

Address : 123-12 Jeonglim-dong, Seo-gu, Daejeon, Korea

Information service or emergency call : +82-42-581-8448 (042-581-8448, Korea)

Department in charge : Research Department

SECTION 2. HAZARDOUS IDENTIFICATION



Primary routes of entry : Skin or eye contact from splashes. Inhalation of the vapor at room temperature is unlikely.

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects: CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.

Evidence for reproductive toxicity, carcinogenicity and mutagenicity : No data available

HMIS RATING - Health : 2 Flammability : 0 Reactivity : 0

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization : Mixtures

Description : Mixture of the substances listed below with nonhazardous additions.

Buffer's Components in Water:

Reagent	CAS#	Concentration, %
Tris-HCl	77-86-1	< 1
Glycerol	56-81-5	< 50

Components:

Glycerol	CAS: 56-81-5	EI;ECS: 200-289-5	≤ 50 %
water	CAS: 7732-18-5	EI;ECS: 231-791-2	25-50 %

Other components are not dangerous or their concentrations do not exceed the limits specified in the EU directive 1999/45/EC.

SECTION 4. FIRST AID MEASURES

After skin contact

Wash skin with water and soap and rinse thoroughly. Remove contaminated clothing. Get medical attention if irritating occurs.

After eye contact

Rinse opened eyes for several minutes under running water. Get medical attention if eyes become irritating.

After swallowing (ingestion)

Rinse mouth. Drink plenty of water. Get medical attention if irritating or symptoms occur.

After inhalation

If inhaled, remove to fresh air. If breathing is difficult, call a physician.

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing media

Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special firefighting procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosions hazards

Emit toxic fumes under fire conditions.

Prevent contact with skin and eyes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear self-contained breathing apparatus, chemical safety goggles, rubber boots, and chemical resistant gloves. Wear disposable coveralls and discard them after use.

Environmental precautions

Do not allow entering sewers, surfaces or ground water.

Measures for cleaning / collecting

Collect spilled liquid with liquid-binding material or inert absorbent and place it in container for disposal. Wash spill site after material pickup is complete.

SECTION 7. HANDLING AND STORAGE

Handling:

No special measures necessary. Good laboratory technique should be used when handling. Keep away from heat.

Storage:

No special measures necessary. Store at -20°C. Keep container tightly closed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Safety shower and eye bath. Mechanical exhaust required.

Exposure limits Eye protection Skin protection:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Personal Protection:

Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/ certified respirator or equivalent. Gloves.

General Hygiene Measures:

Wash thoroughly after handling. Wash contaminated clothing before use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid.
Color	Clear Colorless.
Odor	Odorless.
Melting Point	20 °C.
Boiling Point	182 °C.
Flash point	> 392 F, > 200 °C.
Explosive properties	No data available.
Vapor pressure	< 1 MMHG @ 20 °C.

SECTION 10. STABILITY AND REACTIVITY

Stability	Stable.
Hazardous polymerization	Will not occur
Materials to Avoid	Strong oxidizing agents, strong bases.
Hazardous Decomposition Products:	Carbon Monoxide, Carbon Dioxide
Protect from heat and moisture	

SECTION 11. TOXICOLOGICAL INFORMATION

Eye Contact:	Irritating to eyes
Skin Contact	Irritating to skin.
Multiple Routes	May be harmful by inhalation, ingestion, or skin absorption

Materials may be irritating to mucous membranes and upper respiratory tract.

Chronic Effects : Target Organs, Kidney

Signs and Symptoms of Exposure : Prolonged exposure can cause : Nausea, headache and vomiting

To the best of our knowledge, the properties have not yet been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Data not yet available

SECTION 13. DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material.

Observe all federal, state and local environmental regulations

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

SECTION 14. TRANSPORT INFORMATION

Contact ELPIS Biotech, Inc. Company for Transportation Information.

SECTION 15. REGULATORY INFORMATION

Korea regulatory information : None of the ingredients listed.

US Classification and Label text

US Statements : Caution: Avoid contact and inhalation

United States regulatory information

SARA Listed : No

Canada regulatory information

WHMIS Classification : This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

ELPIS Biotech Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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