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Lysis Buffer (LB) (#IBT0031) consist of a bottle containing an aqueous solution consisting of salts, Triton X-100 and Cycloheximide.

A Safety Data Sheet is provided for 10% Triton X-100 and Cycloheximide.

Lysis Buffer (LB) (#IBT0031) doesn't contain any animal or biological material.

IMMAGINA BIOTECHNOLOGY srl recommends all normal precautions. We recommend always wearing gloves and avoiding direct contact with skin and eyes when handling biochemical and chemical reagents and solutions. Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and IMMAGINA BIOTECHNOLOGY srl assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.

Section 1: Company and Chemical Identification

IMMAGINA BIOTECHNOLOGY srl, Via Sommarive 18, 38123 Trento, Italy, Tel: +39 0461 1787271, info@immaginabiotech.com

This MSDS contains information about 10% Triton X-100 and applies to *IMMAGINA BIOTECHNOLOGY* components Lysis buffer (LB, # IBT0031).

Chemical Name: 10% Triton X-100

Section 2: Composition and Information on Hazardous Ingredients

Component	CAS No	%Wt
Triton X-100	9002-93-1	10%
Synonyms	Polyoxyethylene(10) glycol octylphenyl ether	
Water		90%

Section 3: Hazards Identification



Hazard statements

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Section 4: First Aid Measures

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical assistance.

Ingestion: Obtain medical assistance if ingested. Medical supervision for at least 48 hours if ingested. **Skin contact:** Immediately flush skin with plenty of water. Cover irritated skin with an

emollient. Remove contaminated clothing and shoes. Wash skin with cold water. Wash and/or clean clothing and shoes before reuse. Obtain medical assistance.

Eye contact: Check for and remove contact lenses. Immediately flush eyes with plenty of water (may be cold) for at least 15-20 minutes. Obtain medical assistance.

Health Effects and Symptoms

Inhalation: May be an irritant. Provide with fresh air. Monitor for symptoms if exposed.

Skin contact: May be a skin irritant.

Eye contact: Eye irritant, rinse with running water.

Section 5: Fire Fighting Measures

Fire: May be combustible at high temperature; slight fire hazard when solid form is exposed to flame.

Extinguishing media: water spray, dry chemical, alcohol foam, or carbon dioxide. Do not use water jet.

Explosion: Not considered an explosion hazard.

Hazardous decomposition: Carbon monoxide, carbon dioxide

Special fire fighting procedures: Fire fighters should wear NIOSH or equivalent approved positive pressure self-contained breathing apparatus and full protective gear. NFPA Ratings: Health 2

Flammability: 0 Reactivity: 0

Section 6: Accidental Release Measures

Remove all ignition sources. Ventilate area of leak or spill. Wear appropriate personal protective equipment. Place in a suitable container for reclamation or disposal, using a method that does not generate dust.

Personal Protection: Wear splash goggles or safety glasses. Wear lab coat or protective suit, dust respirator, boots, gloves. If large spill and material has dried use self-contained breathing apparatus and avoid inhalation.

Section 7: Handling and Storage

Handling: Avoid heat and sources of ignition. Thoroughly clean used containers before disposal. Do not ingest. Do not breathe

dust. Wear suitable protective laboratory clothing/equipment. If ingested Obtain medical assistance. Avoid contact with skin, eyes and clothing. Avoid incompatibles such as oxidizing agents. **Storage:** No special requirements

Section 8: Exposure Controls/Personal Protection

Airborne exposure limits: None established

Respiratory protection: dust respirator.

Ventilation: use process enclosures, local exhaust ventilation, or engineering controls if material solidifies.

Personal Protective Equipment: Labcoat, gloves, safety glasses or goggles.

Hygiene: Wash hands before eating or drinking. Avoid contact with eyes.

Section 9: Physical and Chemical Properties

Clear to hazy liquid. Mild odor.

Flash point greater than 100°C.

Section 10: Stability and Reactivity

Stability: Stable

Incompatibility: unknown

Hazardous decomposition products: carbon oxides

Hazardous polymerization: Will not occur

Section 11: Toxicological Information

Chronic Effects: Repeated or prolonged exposure is not known to aggravate medical condition **Irritation Data:**

Skin, lung and eye irritant. No data available.

Toxicity Data: Toxic for fish

Carcinogenic, mutagenic, reproductive and teratogenic effects: Unknown.

Draize test, rabbit, eye: 10 µl of 100%/24H moderate

Draize test, rabbit, skin: 500 µl of 100%/24H mild.

Oral, rat: LD50 for 100%: 1800 mg/kg; 1900 or 3800 mg/kg

Section 12: Ecological Information

Ecotoxicity: Not available; Fish toxicity: bluegill TL (96 hour) Dynamic bioassay: > 10 mg/l Static bioassay: 12 mg/l

Toxicity of biodegradation: The product and degradation products are not toxic.

Section 13: Disposal Considerations

Dispose material and container in accordance with appropriate federal, state and local laws and regulations. Recover and recycle if possible. Processed material may require different disposal methods.

Section 14: Transport Information

No special considerations are known. No UN number. Not controlled under ADR (land, road/railway, IMDG (sea) or IATA (air) or ADN. No transport class or packaging group.

Section 15: Regulatory Information

Not listed under SARA 302/304 RQ, TPQ 311/312 or 313 list or category. Listed in inventory of TSCA, EC, Japan and Australia

Listed on Canada's DSL. WHMIS classification of D2B.

Not listed under Clean Water Act (CWA) parts 307, 311

No present on state lists for CA, PA, MN, MA, NJ or FL

Not listed under Clean air act (CAA) part 112 (toxic, flammable or release prevention not found) Not listed as class 1 or class 2 ozone depletory.

Water hazard class: Class 1; slightly hazardous for water.

Section 16: Other Information

The above information is offered in good faith as accurate, but without guarantee, and should 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 doesn't represent any guarantee of the properties of the product. IMMAGINA BIOTECHNOLOGY srl shall not be held liable for any damage resulting from handling of from contact with the above product. All risks of use of the product should be assumed by the user.

Section 1: Company and Chemical Identification

IMMAGINA BIOTECHNOLOGY srl, Via Sommarive 18, 38123 Trento, Italy, Tel: +39 0461 1787271, info@immaginabiotech.com

Chemical Name: Cycloheximide

This MSDS contains information about Cycloheximide and applies to *IMMAGINA BIOTECHNOLOGY* products supplied as aqueous solutions containing 20 mg/mL Cycloheximide as Lysis Buffer (LB) (#IBT0031).

Section 2: Composition and Information on Hazardous Ingredients

Component	CAS No
Cycloheximide	66-81-9

Section 3: Hazards Identification



Hazard statement(s)

H300 Fatal if swallowed.

H341 Suspected of causing genetic defects.

H360D May damage the unborn child.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201 Obtain special instructions before use.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER/ doctor.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Section 4: First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: POISON material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

Section 5: Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 4; Flammability: 1; Instability: 0

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7: Handling and Storage

Handling: Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

OSHA Vacated PELs: Cycloheximide: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9: Physical and Chemical Properties

Physical State: Powder
Appearance: white to beige
Odor: none reported
pH: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate:Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point:107 - 114 deg C
Decomposition Temperature:Not available.
Solubility: Soluble.
Specific Gravity/Density:Not available.
Molecular Formula: $C_{15}H_{23}NO_4$
Molecular Weight:281.35

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, strong bases, acid chlorides, acid anhydrides.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

RTECS#:

CAS# 66-81-9: MA4375000

LD50/LC50:

CAS# 66-81-9:

Draize test, rabbit, skin: 1 pph/24H Moderate;

Oral, mouse: LD50 = 133 mg/kg;

Oral, rat: LD50 = 2 mg/kg;

Carcinogenicity:

CAS# 66-81-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: Teratogenic effects have occurred in experimental animals.

Reproductive Effects: Adverse reproductive effects have occurred in experimental animals.

Mutagenicity: See actual entry in RTECS for complete information.

Neurotoxicity: No information available.

Other Studies:

Section 12: Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No information available.

Physical: No information available.

Other: Do not empty into drains.

Section 13: Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14: Transport Information

Shipping Name:	US DOT TOXIC SOLID, ORGANIC, N.O.S.	Canada TDG TOXIC SOLID, ORGANIC, N.O.S.
Hazard Class:	6.1	6.1
UN Number:	UN2811	UN2811
Packing Group:	I	I

Section 15: Regulatory Information

US FEDERAL

TSCA

CAS# 66-81-9 is not listed on the TSCA inventory. It is for research and development use only.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

CAS# 66-81-9: 100 lb lower threshold TPQ; 10000 lb upper threshold TPQ

SARA Codes

CAS # 66-81-9: immediate, delayed.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 66-81-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

California Prop 65

WARNING: This product contains Cycloheximide, a chemical known to the state of California to cause developmental reproductive toxicity.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T+ N

Risk Phrases:

R 28 Very toxic if swallowed.

R 61 May cause harm to the unborn child.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.
R 68 Possible risk of irreversible effects.

Safety Phrases:

- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S 53 Avoid exposure - obtain special instructions before use.
- S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

WGK (Water Danger/Protection)

CAS# 66-81-9: 3

Canada - DSL/NDSL

None of the chemicals in this product are listed on the DSL or NDSL list.

Canada - WHMIS

This product has a WHMIS classification of D1A, D2A.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16: Other Information

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