



According to COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)  
GENERIC EU MSDS – NO COUNTRY SPECIFIC DATA – NO OEL DATA

# LumiBlue ECL EXPRESS – ECLS0250 / ECLS0500 Luminol enhancer solution (A)

## **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### 1.1. Product identifier:

- **Product name:** LumiBlue ECL EXPRESS - Luminol enhancer solution (A)
- **Product code:** ECLS0250, ECLS0500
- **Brand:** Expedeon Ltd.
- **CAS#:** None

### 1.2. Relevant identified uses of the substance or mixture and uses advised against:

- **Identified uses:** Laboratory chemicals, manufactures of substances.

### 1.3. Details of the supplier of the safety data sheet:

- **Company:** Expedeon Ltd.
- **Telephone/fax:** +44 (0)1223 873364 / +44 (0)1223 873371
- **E-mail address:** info@expedeon.com

### 1.4. Emergency telephone number:

- **Emergency phone:** +39 02-6610-1029 Poison Control Center Ospedale Niguarda Cà Granda – Piazza Ospedale Maggiore, 3 - 20162 Milano (ITALY).

## **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture:

#### **Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Skin irritation (Category 2).  
Eye irritation (Category 2).  
Specific target organ toxicity - single exposure (Category 3).

#### **Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Irritating to eyes, respiratory system and skin.

### 2.2. Label elements:

#### **Labeling according Regulation (EC) No 1272/2008 [CLP]**

Pictogram



Signal word Warning.

Hazard statement(s):

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statement(s):

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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

Model approved by: DP, RSQ and DS

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Supplemental Hazard: none.

**According to European Directive 67/548/EEC as amended.**

Hazard symbol(s)



R-phrase(s):

R36/37/38 Irritating to eyes, respiratory system and skin.

S-phrase(s):

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36 Wear suitable protective clothing.

Caution - substance not yet tested completely.

**2.3. Other hazards:**

- None.

**SECTION 3: Composition/information on ingredients**

**3.1. Substances:**

- Synonyms:
- Formula:
- Molecular weight:

**3.2. Mixtures:**

<b>Component:</b> Luminol	<b>Concentration:</b> 0.1÷1%
<b>CAS#:</b> 521-31-3	<b>EC-No#:</b> 208-309-4
<b>Symbol:</b> Xi	<b>R-Phrase:</b> R36/37/38
<b>Component:</b> Sodium 3-(10'-phenothiazinyl)propane 1-sulfonate	<b>Concentration:</b> 0.1÷1%
<b>CAS#:</b> Not available.	<b>EC-No#:</b> Not available.
<b>Symbol:</b> None	<b>R-Phrase:</b> Not controlled under dsd
<b>Component:</b> Triazole	<b>Concentration:</b> 0.1÷1%
<b>CAS#:</b> 288-88-0	<b>EC-No#:</b> 206-022-9
<b>Symbol:</b> Xi	<b>R-Phrase:</b> R22/36/63
<b>Component:</b> Tris base	<b>Concentration:</b> 3÷5%
<b>CAS#:</b> 77-86-1	<b>EC-No#:</b> 201-064-4
<b>Symbol:</b> Xi	<b>R-Phrase:</b> R36/37/38
<b>Component:</b> Ethylene glycol	<b>Concentration:</b> 1÷3%
<b>CAS#:</b> 107-21-1	<b>EC-No#:</b> 203-473-3
<b>Symbol:</b> Xn	<b>R-Phrase:</b> R22
<b>Component:</b> Hydrochloric acid	<b>Concentration:</b> 0.01%
<b>CAS#:</b> 7647-01-0	<b>EC-No#:</b> 231-595-7
<b>Symbol:</b> C	<b>R-Phrase:</b> R34-37

**SECTION 4: First aid measures**

**4.1. Description of first aid measures:**

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Health
Flammability
Reactivity
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- **Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
- **Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
- **Skin:** Wash with soap and water. Get medical attention if irritation develops.
- **Eyes:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

#### 4.2. Most important symptoms and effects, both acute and delayed:

- Contains material which causes damage to the following organs: kidneys, lungs, nervous system, reproductive system, liver, respiratory tract, skin, eyes, central nervous system, eye, lens or cornea.
- Avoid exposure during pregnancy.

#### 4.3. Indication of any immediate medical attention and special treatment needed:

- No data available.

### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media:

- Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2. Special hazards arising from the substance or mixture:

- When heated to decomposition it emits acrid smoke and irritating fumes (Ethylene Glycol).

#### 5.3. Advice for firefighters:

- Wear self contained breathing apparatus for firefighting if necessary.

### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures:

- Avoid dust formation. Avoid breathing vapors, mist or gas.

#### 6.2. Environmental precautions:

- No special environmental precaution required.

#### 6.3. Methods and material for containment and cleaning up:

- Use appropriate protective equipment and methods to clean up spilled substances promptly. Absorb spill onto an appropriate material. Collect and dispose of all waste in accordance with applicable laws.

#### 6.4. Reference to other sections:

- For disposal see section 13.

### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling:

- Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
- Provide appropriate exhaust ventilation at places where dust is formed.

#### 7.2. Conditions for safe storage, including any incompatibilities:

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- Photosensitive, protect material from long-term exposure to light.
- Store in a tightly closed container. Keep refrigerated at +4°C.

### 7.3. Specific end use(s):

- Refer to the Instructions for proper and intended use. Otherwise, contact supplier for specific applications.

## **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters:

- Components with workplace control parameters.

### 8.2. Exposure controls:

- **Engineering controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below exposure limits.
- **Personal protection:** Wear appropriate gloves, lab coat, dust respirator, safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
- **Personal protection in case of a large spill:** Splash goggles, full suit, dust respirator, glove, a self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient, consult a specialist BEFORE handling this product.
- **Exposure limit:**
  - **Luminol:** Not Available;
  - **Sodium 3-(10<sup>1</sup>-phenothiazinil)propane 1-sulfonate:** Not Available;
  - **Solution Component 3:** Not Available;
  - **Tris base:** Not available;
  - **Ethylene Glycol:** TWA: 10CEIL: 10 ppm from BAuA [Germany][1999]SKIN;
  - **Hydrochloric acid:** TWA: 10CEIL: 8 mg/m<sup>3</sup> from BAuA [Germany][1999]Inhalation.

## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties:

- **Physical state and appearance:** Liquid;
- **Odor:** No data available;
- **Color:** Clear colorless to slightly purplish;
- **pH (1% soln/water):** 9.3 to 9.6 (basic);
- **Specific Gravity:** 1 (water =1);
- **Boiling point:** The lowest known value is 100°C (Milli-Q water);
- **Vapour Pressure:** The highest known value is 2.3 kPa @20°C (Milli-Q Water);
- **Vapour Density:** The highest known value is 2.14 (air = 1) (ethylene glycol);
- **Evaporation Rate:** 0.01 (ethylene glycol) compared to n-butyl acetate = 1;
- **Freezing/Melting point:** May start to solidify at -0.1 °C based on data for Milli-Q Water;
- **Viscosity:** The highest known value is 21 cP (ethylene glycol);
- **Flammability:** Non-flammable;
- **Flash Point:** The lowest known value is CLOSED CUP: 116°C- OPEN CUP: 110.9 (Ethylene Glycol);

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- **Explosive properties:** No data available;

#### 9.2. Other information:

- No data available.

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity:

- No data available.

#### 10.2. Chemical stability:

- Stable under normal temperatures and pressures.

#### 10.3. Possibility of hazardous reactions:

- No data available.

#### 10.4. Conditions to avoid:

- Light.

#### 10.5. Incompatible materials:

- Avoid strong oxidants.

#### 10.6. Hazardous decomposition products:

- Carbon monoxide, carbon dioxide, nitrogen oxides.

### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects:

- **Acute toxicity:** Acute oral toxicity (LD50): 1.750 mg/kg [Rat.] (Solution Component 3). 1650 mg/kg [Cat.] (Ethylene Glycol). Acute dermal toxicity (LD50): 9530 mg/kg [Rabbit.] (Ethylene Glycol).
- **Irritation and corrosion:** No data available.
- **Sensitisation:** No data available.
- **Chronic exposure:** Carcinogenic effects: Classified None by NIOSH (Ethylene Glycol). Classified A4 (Not classifiable for human or animal) by ACGIH (Ethylene Glycol). Developmental Toxicity: Classified Reproductive system/toxin/female. Reproductive system /toxin/male [PROVEN] (Ethylene Glycol).
- **Potential Health Effects:**
  - **Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation (Solution Component 3).
  - **Ingestion:** May be harmful if swallowed (Solution Component 3).
  - **Skin:** May be harmful if absorbed through skin. Causes skin irritation. (Solution Component 3).
  - **Eyes:** Causes serious eye irritation. (component 3). Causes eye burns. (Solution Component 3)
  - Suspected human reproductive toxicant (component 3).
  - To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated (Luminol).

### **SECTION 12: Ecological information**

#### 12.1. Toxicity:

- No data available.

#### 12.2. Persistence and degradability:

- No data available.

#### 12.3. Bioaccumulative potential:

- No data available.

#### 12.4. Mobility in soil:

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- No data available.

**12.5. Results of PBT and vPvB assessment:**

- No data available.

**12.6. Other adverse effects:**

- No data available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods:**

- Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
- Contaminated packaging:** Dispose of as unused product.

**SECTION 14: Transport information**

**14.1. UN number:**

<b>ADR/RID:</b>	<b>IMDG:</b>	<b>IATA:</b>
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**14.2. UN proper shipping name:**

<b>ADR/RID:</b> Not dangerous goods	<b>IMDG:</b> Not dangerous goods	<b>IATA:</b> Not dangerous goods
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**14.3. Transport hazard class(es):**

<b>ADR/RID:</b>	<b>IMDG:</b>	<b>IATA:</b>
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**14.4. Packing group:**

<b>ADR/RID:</b>	<b>IMDG:</b>	<b>IATA:</b>
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**14.5. Environmental hazards:**

<b>ADR/RID:</b> No	<b>IMDG Marine pollutant:</b> No	<b>IATA:</b>
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**14.6. Special precautions for user:**

- No data available.

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:**

- This product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

**SECTION 16: Other information**

- Further 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. 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 does not represent any guarantee of the properties of the product. Expedeon Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. See invoice or packing slip for additional terms and conditions of sale.

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