

Trade name:

# Western Lightning Plus

**Article number:**

- NEL103E001EA Western Lightning Plus-ECL Enhanced Chemiluminescence Substrate for 200 cm<sup>2</sup> of membrane
- NEL103001EA Western Lightning Plus-ECL Enhanced Chemiluminescence Substrate for 1000 cm<sup>2</sup> of membrane
- NEL104001EA Western Lightning Plus-ECL Enhanced Chemiluminescence Substrate for 2500 cm<sup>2</sup> of membrane
- NEL105001EA Western Lightning Plus-ECL Enhanced Chemiluminescence Substrate for 5000 cm<sup>2</sup> of membrane

012024 V1.0

**NEL103E001EA:**

Composition		Hazards identification
ORT2751	Luminol Reagent Plus	GHS08, H360
ORT2651	Oxidizer Reagent Plus	

**NEL103001EA:**

Composition		Hazards identification
ORT2753	Luminol Reagent Plus	GHS08, H360
ORT2653	Oxidizer Reagent Plus	

**NEL104001EA:**

Composition		Hazards identification
ORT2755	Luminol Reagent Plus	GHS08, H360
ORT2655	Oxidizer Reagent Plus	

**NEL105001EA:**

Composition		Hazards identification
ORT2755	Luminol Reagent Plus	GHS08, H360
ORT2655	Oxidizer Reagent Plus	

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 15.01.2024

Version number 2

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

- **1.1 Product identifier**
- **Trade name:** Luminol Reagent Plus
- **Article number:** 0RT2751, 0RT2753, 0RT2755
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Revvity Health Sciences B.V.  
Rigaweg 22  
9723 TH Groningen  
The Netherlands  
Phone: 0031 50 5445900  
www.revvity.com
- **Further information obtainable from:**  
Quality Assurance, Environment, Safety & Health (QA/ESH)  
SDS.Groningen@revvity.com
- **1.4 Emergency telephone number:**  
+31 50 5445971  
CHEMTREC: +1 703-527-3887

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



health hazard

Repr. 1B H360 May damage fertility or the unborn child.

- 
- **2.2 Label elements**
  - **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the GB CLP regulation.
  - **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard statements**  
H360 May damage fertility or the unborn child.
- **Precautionary statements**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Additional information:**  
Safety data sheet available on request.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 1303-96-4 EINECS: 215-540-4 Index number: 005-011-00-4	disodium tetraborate decahydrate ----- ☠ Repr. 1B, H360FD ☠ Eye Irrit. 2, H319	≤2.5%
CAS: 20666-12-0	3-Aminophthalhydrazide monosodium salt ----- ☠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤2.5%
CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-6	Sodium hydroxide ----- ☠ Met. Corr. 1, H290; Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: $C \geq 5\%$ Skin Corr. 1B; H314: $2\% \leq C < 5\%$ Skin Irrit. 2; H315: $0.5\% \leq C < 2\%$ Eye Irrit. 2; H319: $0.5\% \leq C < 2\%$	≤2.5%
CAS: 501-98-4	p-Coumaric acid trans-4-Hydroxycinnamic acid ----- ☠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤2.5%

· **SVHC**

1303-96-4	disodium tetraborate decahydrate
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· **Non-dangerous components**

CAS: 67-68-5 EINECS: 200-664-3	dimethyl sulfoxide	≤2.5%
CAS: 7732-18-5 EINECS: 231-791-2	water, distilled, conductivity or of similar purity	80-100%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

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**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

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

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Hand protection**



Protective gloves

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EN ISO 374-1/Type B

· **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.1$  mmBreakthrough time  $> 480$  minutes

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**

Tightly sealed goggles

· **Body protection:** Protective work clothing

## SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**

· <b>Colour:</b>	Light yellow
· <b>Odour:</b>	Odourless
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Boiling point or initial boiling point and boiling range</b>	100 °C (212 °F)
· <b>Flammability</b>	Not determined.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not applicable.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not applicable.
· <b>Dynamic:</b>	Not applicable.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
· <b>Density and/or relative density</b>	
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.

· **9.2 Other information**· **Appearance:**· **Form:** Liquid· **Important information on protection of health and environment, and on safety.**· **Ignition temperature:** Product is not selfigniting.

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|---|---|
| <ul style="list-style-type: none"> <li>· <b>Explosive properties:</b></li> <li>· <b>Change in condition</b></li> <li>· <b>Evaporation rate</b></li> </ul> | <p>Product does not present an explosion hazard.</p> <p>Not applicable.</p> |
|---|---|

- |   |   |
|---|---|
| · <b>Information with regard to physical hazard classes</b>   |   |
| <ul style="list-style-type: none"> <li>· <b>Explosives</b></li> <li>· <b>Flammable gases</b></li> <li>· <b>Aerosols</b></li> <li>· <b>Oxidising gases</b></li> <li>· <b>Gases under pressure</b></li> <li>· <b>Flammable liquids</b></li> <li>· <b>Flammable solids</b></li> <li>· <b>Self-reactive substances and mixtures</b></li> <li>· <b>Pyrophoric liquids</b></li> <li>· <b>Pyrophoric solids</b></li> <li>· <b>Self-heating substances and mixtures</b></li> <li>· <b>Substances and mixtures, which emit flammable gases in contact with water</b></li> <li>· <b>Oxidising liquids</b></li> <li>· <b>Oxidising solids</b></li> <li>· <b>Organic peroxides</b></li> <li>· <b>Corrosive to metals</b></li> <li>· <b>Desensitised explosives</b></li> </ul> | <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> <p>Void</p> |

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**  
May damage fertility or the unborn child.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

**SECTION 12: Ecological information**

· **12.1 Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**

· **Additional ecological information:**

· **General notes:** Not hazardous for water.

**SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

· **14.1 UN number or ID number**

· **ADR, ADN, IMDG, IATA** Void

· **14.2 UN proper shipping name**

· **ADR, ADN, IMDG, IATA** Void

· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**

· **Class** Void

· **14.4 Packing group**

· **ADR, IMDG, IATA** Void

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

Not applicable.

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

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· UN "Model Regulation": Void

**SECTION 15: Regulatory information**· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

· **Poisons Act**· **Regulated explosives precursors**

None of the ingredients is listed.

· **Regulated poisons**

None of the ingredients is listed.

· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

1310-73-2 Sodium hydroxide

12% of total caustic alkalinity

· **National regulations:**· **Substances of very high concern (SVHC) according to UK REACH**

1303-96-4 disodium tetraborate decahydrate

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H360FD May damage fertility. May damage the unborn child.

· **Department issuing SDS:** Quality Assurance, Environment, Safety & Health (QA/ESH)· **Contact:** SDS.Groningen@revvity.com· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Met. Corr. 1: Corrosive to metals – Category 1

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

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Repr. 1B: Reproductive toxicity – Category 1B  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
· **\* Data compared to the previous version altered.**

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