

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Version: 1.0

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## 1. Identification

### Product identifier

Product name LumiFlash™ Femto Chemiluminescent Substrate  
Product number LF24-10S / LF24-100  
Recommended use Biochemical reagent for research use only

### Details of the supplier of the safety data sheet

Manufacture / Supplier Energenesis Biomedical Co., Ltd.  
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## 2. Hazard(s) identification

**Classification of the substance or mixture** Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 [CLP]

**Label elements** Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 [CLP]

**Other hazards** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 3. Composition/information on ingredients

**Substance/mixture** Mixture

Component	Description	Content
Solution A	contains 5-amino-1,2,3,4-tetrahydrophthalazine-1,4-dione	LF24-10S: 2 mL LF24-100: 50 mL
Solution B	contains Hydrogen peroxide	LF24-10S: 2 mL LF24-100: 50 mL

CAS No. EC No. Index No.	Component Name Synonyms	1272/2008 (CLP)	Percent
521-31-3 208-309-4 —	5-amino-1,2,3,4-tetrahydrophthalazine-1,4-dione		<0.1
7722-84-1 231-765-0 008-003-00-9	Hydrogen peroxide		<0.1

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

<b>Additional information</b>	For the full text of the H-Statements mentioned in this Section, see Section 16.
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## 4. First aid measures

<b>Description of first aid measures</b>	
Eye Contact	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Remove contact lenses, clean before re-use. Get immediate medical attention.
Inhalation	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.
Skin Contact	Wash with soap and water. Remove contaminated clothing and launder immediately, and discard contaminated leather goods, and wash before re-use. Get medical attention immediately if irritation develops or persists.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water or milk to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention immediately.
<b>Most important symptoms and effects, both acute and delayed</b>	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
<b>Indication of any immediate medical attention and special treatment needed</b>	No data available

## 5. Firefighting measures

<b>Extinguishing media</b>	
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Special hazards arising from the substance or mixture</b>	No data available
<b>Advice for fire-fighters</b>	Wear self-contained breathing apparatus for firefighting if necessary.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

<b>Methods and material for containment and cleaning up</b>	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
<b>Reference to other sections</b>	For disposal see section 13.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature: 2-8 °C
<b>Specific end use(s)</b>	Apart from the uses mentioned in section 1 no other specific uses are stipulated.

## 8. Exposure controls/personal protection

<b>Control parameters</b>	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
<b>Exposure controls</b>	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice.
Personal protective equipment	
Eye protection	Wear chemical safety goggles. An eye wash station must be available where this product is used.
Skin and body protection	Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
Hand protection	Wear chemically resistant gloves, Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Have a safety shower available.

## 9. Physical and chemical properties

<b>Information on basic physical and chemical properties</b>	
Appearance	Form: liquid Color: clear
Odour	Odorless
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Flammability (solid, gas)	No data available
Lower and upper explosive (flammable) limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	No data available
Solubility in water	No data available
Partition coefficient: n-octanol/ water (log Kow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

## 10. Stability and reactivity

<b>Reactivity</b>	No data available
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	No data available
<b>Incompatible materials</b>	Strong bases, Powdered metals
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

<b>Information on toxicological effects</b>	No data available
Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	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.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	No data available

## 12. Ecological information

<b>Toxicity</b>	No data available
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# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Results of PBT and vPvB assessment</b>	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
<b>Other adverse effects</b>	No data available

## 13. Disposal considerations

### Waste treatment methods

Product	Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	Dispose of as unused product.

## 14. Transport information

<b>IATA / ADR / RID / IMDG</b>	Classified as dangerous in the meaning of transport regulations.
<b>UN number</b>	—
<b>UN proper shipping name</b>	Not dangerous goods
<b>Transport hazard class(es)</b>	—
<b>Packaging group</b>	—
<b>Environmental hazards</b>	no
<b>Special precautions for user</b>	No data available
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	No data available

## 15. Regulatory information

<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
<b>Chemical safety assessment</b>	No data available

## 16. Other information

### Abbreviations

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
BEIs	Biological exposure indices
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association-Dangerous Goods Regulations
CAS	Chemical Abstracts Service (division of the American Chemical Society)
LD50	Lethal dose, 50 percent
OSHA	Occupational Health and Safety Administration
PEL	Permissible Exposure Limit
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
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