



## MATERIAL SAFETY DATA SHEET

### SECTION 1 - PRODUCT AND COMPANY INFORMATION

- ◆ **Product name: DMNPE-caged Luciferin**
- ◆ **Catalog number:** LC10000; LC25000; LC50000.
- ◆ **Chemical name or synonyms:** D-Luciferin 1- (4,5-dimethoxy-2- nitrophenyl) ethyl ester
- ◆ **Contact:**

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### SECTION 2 – HAZARDS IDENTIFICATION

- ◆ **GHS Classification**  
No
- ◆ **GHS Label element**

Signal Word:	None
Hazard Statements:	None
Pictograms:	None
- ◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **May cause skin irritation and/or dermatitis.**
- ◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**
- ◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

### SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>EINECS</u>	<u>Classification</u>
D-Luciferin 1- (4,5-dimethoxy-2- nitrophenyl) ethyl ester	223920-67-0	> 99 %	-	None

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1907/2006 (REACH) and EU-Regulation 1272/2008 (CLP).

### SECTION 4 – FIRST AID MEASURES

- ◆ **Effects and symptoms:**
  - *Inhalation* May cause irritation of respiratory tract.
  - *Ingestion* May be harmful if swallowed.
  - *Skin contact* May cause allergic skin reaction.
  - *Eye contact* Slightly hazardous in case of eye contact. Avoid contact with eyes.
  - *Aggravating conditions* Repeated or prolonged exposure is not known to aggravate medical conditions.
- ◆ **First-Aid measures:**
  - *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.
  - *Ingestion* Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
  - *Skin contact* In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
  - *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
  - *Notes to physician* Not available.
  - *Protection of first-aiders* Not available.

## SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** Not available.
- ◆ **Fire hazards in presence of various substances:** Not considered to be flammable.
- ◆ **Fire fighting media and instructions:** Use dry chemical, CO<sub>2</sub>, water spray or foam.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Burning produces irritant fumes.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

## SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid breathing vapors or spray mists. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at -20°C under inert gas.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

## SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.
- ◆ **Personal protection**
  - **Eyes:** Safety glasses.
  - **Body:** Lab coat and gloves.
  - **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
  - **Physical State:** solid.
  - **Color:** Yellowish powder.
  - **Odor:** Not available.
  - **Taste:** Not available.
- ◆ **Molecular weight:** 483.53.
- ◆ **Molecular formula:** C<sub>21</sub>H<sub>19</sub>N<sub>3</sub>O<sub>7</sub>S<sub>2</sub>
- ◆ **pH:** Not available
- ◆ **Boiling point:** Not available.
- ◆ **Decomposition temperature:** Not available
- ◆ **Flash point:** Not available.
- ◆ **Solubility:** Insoluble in water, soluble in DMF.

## SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** The product is stable under recommended storage conditions.
- ◆ **Conditions to avoid:** Exposure to light, air or moisture over prolonged periods.
- ◆ **Materials to avoid:** Strong acids, strong bases, strong oxidizing agents.
- ◆ **Hazardous polymerization:** Will not occur.
- ◆ **Hazardous decomposition products:** Will not occur.

## SECTION 11 – TOXICOLOGICAL INFORMATION

- ◆ **Toxicity on animals:**
  - **LD50:** Not available.

- LC50: Not available.
- ◆ **Chronic effects on humans:** Chronic exposure may causes nausea and vomiting. Higher exposure may causes unconsciousness.
- ◆ **Other toxic effects on humans:** Slightly hazardous in case of ingestion, skin or eye contact.

**SECTION 12 – ECOLOGICAL INFORMATION**

- ◆ No data available.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

- ◆ **Waste stream:** Not available.
- ◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ **European waste catalogue (EWC):** Not available.
- ◆ **Hazardous waste:** Will not occur.

**SECTION 14 – TRANSPORT INFORMATION**

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**D.O.T.:** Not regulated.

**IATA.:** Not regulated.

**IMDG:** Not regulated.

**SECTION 15 – OTHER INFORMATION**

◆ **US Federal Regulations**

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112, Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Not applicable

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

**Massachussets Right to know components;**

D-Luciferin 1- (4,5-dimethoxy-2- nitrophenyl) ethyl ester CAS: 223920-67-0

**Pennsylvania Right to know components;**

D-Luciferin 1- (4,5-dimethoxy-2- nitrophenyl) ethyl ester CAS: 223920-67-0

This product does not contain any Proposition 65 chemicals.

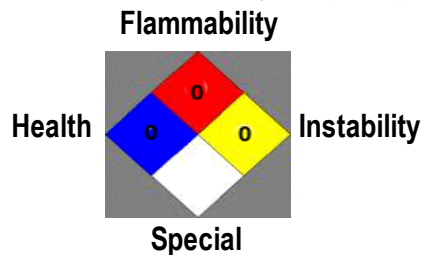
- ◆ This product is not classified according to the EU 1907/2006 (REACH) and EU-Regulation 1272/2008 (CLP).

SECTION 16– OTHER INFORMATION

◆ Hazardous Material Information System (U.S.A.):

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

◆ Hazardous Material Information System (U.S.A.):



0 = not significant  
 1 = slight  
 2 = moderate

3 = high  
 4 = extreme  
 \* = chronic

◆ Revisions:

Issue Date: 24 July 2017  
 Last Revision Date: 04 March 2026  
 Revision note Updates Section 2,3,15.

◆ Other Comments:

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**Restriction of use:** for research use only.