

## Safety Data Sheet (SDS)

Version 1.2. Issued on 14/05/2024

### **Section 1. Identification**

#### *1.1. Product Identifiers:*

*1.1.1. Product Name:* D-infraluciferin methyl ester (Abbreviation: D-iLH<sub>2</sub> Me ester).

*1.1.2. Product Catalogue Identifier:* BFRSiLH201.

#### *1.2. Recommended Use and Restrictions on Use:*

For Laboratory Research and Development Only. Not for Veterinary or Therapeutic Use. Not for Humans.

#### *1.3. Safety Data Sheet Issuer Company Details:*

*1.3.1. Company Name:* Bioflares Ltd.

#### *1.3.2. Company Address:*

Building 500, Ramsgate Road, Sandwich, Kent, CT13 9FF.

*1.3.3. Email Address:* [Customerservices@bioflares.com](mailto:Customerservices@bioflares.com).

#### *1.4. Emergency Telephone Number:*

+44(0)737 648 1234.

### **Section 2. Hazard(s) Identification**

*2.1. Classification:* Not a Hazardous Substance or Mixture.

#### *2.1.1. Signal word(s), hazard statement(s); symbol(s) and precautionary statement(s):*

Not a Hazardous Substance or Mixture.

#### *2.1.2. Hazards not otherwise classified or not identified by the globally harmonised system:*

None.

#### *2.2. GHS Hazard and Precautionary Statements:*

We recommend caution in handling and against physical contact or inhalation. The most relevant hazard and precautionary statements are listed below. No further relevant information is available.

<b>Hazard Statements</b>
H303
H313
H317
H320*
H333
H335
<b>Precautionary Statements</b>
P280

### 2.3. Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

## **Section 3. Composition/ Information on Ingredients**

3.1. Chemical Name: *D*-infraluciferin methyl ester.

3.2. Synonyms: (4S)-2-[(E)-2-(6-hydroxy-1,3-benzothiazol-2-yl)ethenyl]-4,5-dihydro-1,3-thiazole-4-carboxylic acid methyl ester; *D*-iLH<sub>2</sub> Me ester. A dual colour far-red to near-infrared firefly luciferin analogue designed for multiparametric bioluminescence imaging (*Angew. Chem. Int. Ed. Engl.* 53: 13059-63).

3.3. Formula: C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>3</sub>S<sub>2</sub>.

3.4. Formula Weight: 302.38668 g/mol.

## **Section 4. First-Aid Measures**

### 4.1. Description of Necessary Measures

4.1.1. General Advice: No special measures required; if symptoms arise consult a physician and show them this safety data sheet.

4.1.2. After Skin Contact: Wash with copiously soap and water.

4.1.3. After Eye Contact: Flush eyes with water or saline eye wash.

4.1.4. *After Inhalation:* Move individual into fresh air and seek a physician if symptoms arise.

4.1.5. *After Swallowing:* Wash out mouth with water copiously and seek a physician if symptoms arise.

4.2. *Most Important Symptoms/Effects, Acute and Delayed:*

Note to physician: treat symptomatically. No further relevant information available.

4.3. *Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:*

No further relevant information available.

## **Section 5. Fire-Fighting Measures**

5.1. *Suitable (and unsuitable) extinguishing media:*

Use any extinguishing methods suitable to the environment and nature of fire.

5.2. *Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):*

May emit toxic fumes. No further information available.

5.3. *Special protective equipment and precautions for fire-fighters:*

Wear self-contained breathing apparatus and wear protective equipment to prevent physical contact.

## **Section 6. Accidental Release Measures**

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

6.1.1. *Personal precautions:* Clean up any spills quickly using personal protective equipment.

6.2. *Methods and materials for containment and cleaning up:*

6.2.1. *Measures for environmental protection:*

If safe, prevent any further leakages. Prevent product entering drainage.

### 6.2.2. Measures for cleaning/collecting:

Collect spilled material onto absorbent material and dispose of in accordance with local regulations.

## **Section 7. Handling and Storage**

7.1. *Precautions for safe handling:* Ensure adequate ventilation. No special measures required.

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

No special measures required. Keep the compound dry, cool and light protected, as in the user manual to extend the life of the product.

## **Section 8. Exposure Controls/ Personal Protection**

8.1. *Additional information about design of technical systems:*

No further data; see section 7.

8.2. *Control parameters:*

Contains no substances requiring occupational exposure monitoring.

8.3. *Exposure controls:*

8.3.1. *Personal protective equipment:*

8.3.2. *General protective and hygienic measures:*

Normal precautions for handling chemicals should be used.

8.3.3. *Breathing equipment:*

Not required.

8.3.4. *Protection of hands:*

Glove material should be impermeable and resistant to the preparation being handled. Selection of glove material should be based on break-through times and material stability.

8.3.5. *Material of gloves:*

Nitrile gloves (used within their manufacturer's recommendations) are adequate protection for material prepared in accordance with the Bioflares user manual. Other glove materials should be used in accordance with their manufacturer's guidelines.

8.3.6. *Eye protection:* Not required.

### **Section 9. Physical and Chemical Properties**

9.1. *Appearance:* Solid red powder; may be yellow or orange in colour.

9.2. *Odor:* No data available.

9.3. *Odor threshold:* No data available.

9.4. *pH:* No data available.

9.5. *Melting point/melting range:* No data available.

9.6. *Boiling point/boiling range:* No data available.

9.7. *Flash point:* No data available.

9.8. *Evaporation rate:* No data available.

9.9. *Flammability (solid, gas):* No data available.

9.10. *Upper/lower flammability or explosive limits:*

No data available.

9.10.1. *Auto-ignition temperature:* No data available.

9.10.2. *Danger of explosion:* No data available.

9.11. *Vapour pressure:* No data available.

9.12. *Vapour density:* No data available.

9.13. *Relative density:* No data available.

9.14. *Solubility in/Miscibility with water:*

Low.

9.15. *Partition coefficient: n-octanol/water:*

No data available.

9.16. *Auto-ignition temperature:* No data available.

9.17. *Decomposition temperature:* No data available.

9.18. *Viscosity:* No data available.

## **Section 10. Stability and Reactivity**

10.1. *Reactivity:* No data available.

10.2. *Chemical stability:* Stable under storage conditions as outlined in the Bioflares user manual.

10.3. *Possibility of hazardous reactions:*

No data available.

10.4. *Conditions to avoid:* No data available.

10.5. *Incompatible materials:* No data available.

10.6. *Hazardous decomposition products:*

No data available.

## **Section 11. Toxicological Information**

11.1. *Acute toxicity:* No data available.

11.2. *Potential routes of exposure/potential health effects:*

No data available.

11.2.1. *Skin:* No data available (may irritate skin).

11.2.2. *Eye:* No data available (may irritate eyes).

11.2.3. *Inhalation:* No data available (may be harmful by inhalation).

11.2.4. *Ingestion:* No data available (may be harmful by ingestion).

11.2.5. *Carcinogenic effects:* No data available.

11.2.6. *Mutagenic effects:* No data available.

11.2.7. *Reproductive toxicity:* No data available.

11.2.8. *Sensitization:* No data available.

11.2.9. *Target organs:* No data available.

## **Section 12. Ecological Information**

12.1. *Ecotoxicity:* No data available.

12.2. *Persistence and degradability:* No data available.

12.3. *Bioaccumulative potential:* No data available.

12.4. *Mobility in soil:* No data available.

12.5. *Other adverse effects:* No data available.

## **Section 13. Disposal Considerations**

13.1. *Waste treatment methods:* To be disposed of according to official local regulations.

13.2. *Contaminated packaging:* To be disposed of according to official local regulations.

## **Section 14. Transport Information**

14.1. *DOT:* Not regulated.

14.2. *IMDG:* Not regulated.

14.3. *IATA:* Not regulated.

## **Section 15. Regulatory Information**

15.1. *Safety, health and environmental regulations specific for the product:*

No further information available.

15.2. *US Federal Regulations:*

15.2.1. *SARA Section 355 (extremely hazardous substances):*

Not listed.

15.2.2. *SARA Section 313 (specific toxic chemical listings):*

Not listed.



15.2.3. *Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs):*

Not listed.

15.2.4. *TSCA (Toxic Substances Control Act):*

Not listed.

15.3. *Chemical Safety Assessment:*

No further information available.

## **Section 16. Other Information**

16.1. *SDS date of preparation/update:* 03/09/2022.

16.2. *Contact:* Customerservices@bioflares.com.

16.3. *Disclaimer:*

This product is for laboratory research and development use only and by staff experienced in handling potentially hazardous chemicals. This SDS is provided based on all available knowledge at the time of issuance and may be incomplete and some properties may differ from those stated here. This information should be used a general guide and Bioflares Ltd accepts no responsibility for any incompleteness or inaccuracies in the supplied information. The precautions outlined are only specific to this product as packaged by Bioflares Ltd, and, used according to the user manual provided by Bioflares Ltd. Bioflares Ltd is not liable for any damage whatsoever resulting from handling or contact with the above product, or from the use of this information.