

Safety Data Sheet

Release 1.0
Revision 04/25/2017
Date of issue 04/25/2017



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1 Identification of the substance

Identification of the substance

Identification of the substance D-Luciferin 1-(4,5-dimethoxy-2-nitrophenyl)ethyl ester

Additional identification DMNPE-caged Luciferin

Biosynth catalog no. L-8300

REACH No. A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

Use of the substance/preparation

Identified uses enzyme substrate or reagent

Restriction on use not for food or drug use, for laboratory use only

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Emergency Number

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2 Hazards identification

GHS Labeling

Regulatory List

EC1272/08 Regulation (EC) 1272/2008 (GHS/CLP)

Precautionary Statement

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

P262 Do not get in eyes, on skin, or on clothing.

Additional Information

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated.

3 Composition/information on ingredients

Substance related information

Substance name D-Luciferin 1-(4,5-dimethoxy-2-nitrophenyl)ethyl ester

Synonymes DMNPE-caged Luciferin

Cas No. [223920-67-0]

Formula $C_{21}H_{19}N_3O_7S_2$

4 First aid measures

First Aid: Eye

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

First Aid: Skin

Wash immediately with plenty of water and soap for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothes before reuse. Call a physician.

First Aid: Ingestion

Wash out mouth with water provided person is conscious. Call a physician.

First Aid: Inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Hints for Physician: Treatment

Treat symptomatically.

5 Firefighting measures

Extinguishing Media

Suitable

foam, dry extinguishing powder, carbon dioxide (CO₂), water spray jet

Hazards During Fire-Fighting

toxic fumes

Protective Equipment for Fire-Fighting

Wear a self-contained breathing apparatus and chemical protective clothing.

Fire-Fighting/Further Advice

Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

6 Accidental release measures

Personal Precautions

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation.

Environmental Precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure all waste water is collected and treated via a waste water treatment plant.

Methods for Cleaning or Taking Up

not available

Further Accidental Release Measures

Collect in closed and suitable containers for disposal. Clear contaminated areas thoroughly. Ventilate affected area.

7 Handling and storage

Handling

Handling advice

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling.

Storage**Storage temperature**

store at -15°C

Storage condition

protect from light

Storage Requirements

Warm to Room Temperature before use. Keep away from incompatible substances. Keep container tightly closed when not in use.

8 Exposure controls/personal protection**Exposure controls****Industrial Hygiene**

Mechanical exhaust required. Safety shower and eye shower.

Personal Protective Equipment**Respiratory Protection**

Wear NIOSH/MSHA or European Standard EN 149 approved respirator.

Hand Protection

Wear compatible chemical-resistant gloves to prevent skin exposure.

Eye Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA.

Body Protection

Wear compatible chemical-resistant gloves and clothing to prevent skin exposure.

Advice on Safe Handling

Wash contaminated clothing before reuse. Wear appropriate protective clothing to prevent exposure.

9 Physical and chemical properties**Form**

powder

Phase Transition Solid/Liquid

218 °C

Phase Transition Liquid/Gas

708.2 °C

Molar Mass

489.53 g/mol

Flash Point

382.1 °C

10 Stability and reactivity**Conditions to Avoid**

incompatible materials, light

Substances to Avoid

strong oxidizers

Decomposition Products

nitrogen oxides (NO_x), carbon dioxide (CO₂), sulphur oxides, carbon monoxide

11 Toxicological information

Other Relevant Toxicity Information

We are not aware of any toxicology data.

12 Ecological Information

Biodegradation

no data available

Bioaccumulation

no data available

Distribution in Environment

no data available

13 Disposal considerations

Advice on Disposal and Packaging

Advice on Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and, Dispose of waste according to laws applicable.

Advice on Packaging

not available

14 Transport information

Road Transport (ADR/GGVs)

not regulated

Air Transport (IATA)

not regulated

15 Other regulations

Other Regulations

not available

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