

Safety Data Sheet

according to OSHA HCS 29 CFR 1910.1200(g)



Trade name: **D-Luciferin free acid**

Revision date: 6/01/2020

Product No: 306

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifiers

Product name: **D-Luciferin Free Acid, Firefly Luciferin**

Product No.: 306

Manufacturer: Prolume / NanoLight

CAS-no.: 2591-17-5

EC-no.: 219-981-3

Other means of identification: D-Luciferin Free Acid, Firefly Luciferin

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: laboratory chemical

Details of the supplier of the safety data sheet

Supplier: Prolume
P.O. Box 2746
Pinetop, AZ 85935
USA

phone: +1 928-367-1200

email: info@prolume.com

Emergency telephone number

Phone: +1 928-367-1200

2. HAZARD IDENTIFICATION

Classification of the substance or mixture

GHS classification in accordance with 29 CFR 1910 (OSHA HCS) and No 1272/2008 [CLP] (EC)

GHS label elements including precautionary statements

Pictogram NONE

Signal word NONE

Hazard statement

Precautionary statements: NONE

NONE

Safety Data Sheet

according to OSHA HCS 29 CFR 1910.1200(g)



Trade name: **D-Luciferin free acid**

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Product No: 306

NFPA ratings (scale 0-4)

Health = 0

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0-4)

Health = 0

Fire = 0

Reactivity = 0

Hazards not otherwise classified (HNOC) or not covered by GHS

none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Synonyms: D-Luciferin, Firefly Luciferin, (4S)-2-(6-hydroxy-1,3-benzothiazol-2-yl)-4,5-dihydrothiazole-4-carboxylic acid

Formula: $C_{11}H_8N_2O_3S_2$

Molecular weight: 280.32 g/mol

CAS-No.: 2591-17-5

4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

None

Indication of any immediate medical attention and special treatment needed

No further relevant data available

Safety Data Sheet

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5. FIREFIGHTING MEASURES

Suitable extinguishing media

Water, dry chemical, carbon dioxide, Halon, or standard foam

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid material contact or inhalation of dust. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Wipe surface with moist towel.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear suitable protective equipment to avoid contact with skin, eyes or inhalation of dust.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store desiccated at -20°C.

Product is light sensitive. Protect from light at all times.

8. EXPOSURE CONTROLS – PERSONAL PROTECTION

Components with workplace control parameter

Substance: D-Luciferin Free Acid CAS# 2591-17-5 Cat#306

Control parameter: No information available

Personal protective equipment

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|------------------------------|
| Chemical Name | D- Luciferin |
| Appearance | Light yellow powder |
| Odor | none |
| Odor threshold | No data available |
| pH | acidic |
| Melting point / freezing point | 200°C |
| Boiling point | >300°C |
| Flash point | Not very flammable |
| Evaporate rate | No data available |
| Flammability | No data available |
| Explosive limits | No data available |
| Vapor pressure | <1 at 20°C |
| Vapor density | >1 |
| Relative density | 1.555 g/cm ³ |
| Solubility | Soluble in alkaline solution |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

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12. ECOLOGICAL INFORMATION

Toxicity: no information available

Persistence and degradability: no information available

Biodegradation: no information available

Mobility in soil: no information available

Results of PBT and vPvB assessment: no information available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

14. TRANSPORT INFORMATION

IATA, IMDG, DOT(US) not dangerous good

UN number: none

UN proper shipping name: none

Transport hazard class: none

Packing group: none

Environmental hazards: none

Special precaution for user: none

15. REGULATORY INFORMATION

US Federal Regulations US Toxic Substances Control Act(TSCA): Not listed

SARA 302: No chemicals were found.

SARA 313: No chemicals were found.

SARA 311/312 Hazards: No chemicals were found.

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16. OTHER INFORMATION

Classification according to Regulation (EC) Nr. 1272/2008

Prepared by: Regulatory Department - Prolume Inc.

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Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. Prolume shall not be held liable for any damage resulting from handling or contact with the above product.

Department issuing SDS:

Prolume Inc.
P.O. Box 2746
Pinetop, AZ 85935

Date of preparation / revision: 6/01/2020

Abbreviations and acronyms:

DOT: US Department of Transportation

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

ACGIH: American Conference of Governmental Industrial Hygienists

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health