Safety Data Sheet

according to OHSA HCS 29 CFR 1910.1200(g)

Trade name: **FLuc Assay Reagent** Revision date: 06/01/2020
Product No: 318

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifiers

Product name: **FLuc Assay Reagent / NanoFuel® Assay for Firefly Luciferase**

Product No.: 318
Manufacturer: Prolume / NanoLight

CAS-no.: not assigned
EC-no.:

Other means of identification: Firefly luciferase buffer, D-Luciferin buffer system

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

Identified uses: substrate for luciferase, laboratory chemical, luminescent assay

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)
Acute Toxicity: Oral, Category 4
Skin Corrosion/Irritation: Category 2
Serious Eye Damage/Eye Irritation: Category 2A

GHS label elements including precautionary statements

Pictogram 
Signal word WARNING
Hazard statement:
H302: Harmful if swallowed.
H315: Causes skin irritation.

H319: Causes serious eye irritation.

Precautionary statements:

P264: Wash hands thoroughly after handling.
P280: Wear {protective gloves/protective clothing/eye protection/face protection}.

NFPA ratings (scale 0-4)
Health = 0
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0-4)
Health = 2
Fire = 0
Reactivity = 0

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

none

3. COMPOSTION/INFORMATION ON INGREDIENTS

Substances

Chemical characterization: Mixed compounds in aqueous form

Description: The product is an aqueous liquid containing the following hazardous substances. The exact amount is withheld as part of Prolume Ltd. trade secret.

CAS-number	Component name	Total amount present	GHS classification
3483-12-3	DL-Dithiothreitol, DTT	less than 2% (w/w)	Acute Toxicity (oral) 4:H302 Skin Corr. 2: H315 Eye Damage 2A: H319

Handle all chemicals with caution.

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 plenty of water for at least 15 min. Consult a physician.

In case of eye contact
Rinse immediately with plenty of water, also under eyelids, for at least 15 minutes. Immediate medical attention is required.
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

H302 – Harmful if swallowed, H315 – Causes skin irritation, H319 - Causes serious eye irritation

Indication of any immediate medical attention and special treatment needed

No further relevant data available

5. FIREFIGHTING MEASURES

Suitable extinguishing media
Water, dry chemical, carbon dioxide or standard foam.
Special protective equipment for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTIAL RELEASE MEASURES

Personal precautions
Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation. 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
Soak up inert absorbent material. Wipe surface with moist towel.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid direct contact with substance. Avoid inhalation of vapor or mist.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Store frozen buffer at ≤ -20°C.
Product is light sensitive. Protect from light at all times.

8. EXPOSURE CONTROLS – PERSONAL PROTECTION

Components with workplace control parameter
hazardous substance: DTT, CAS-No. 3483-12-3
Control parameter: Contains no substances with occupational exposure limit values.

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: Work in a well ventilated area. In case of insufficient ventilation, wear suitable respiratory equipment. Respirators and components should be 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	FLuc assay reagent
Appearance	Clear liquid
Odor	No data available
Odor threshold	No data available
pH	No data available
Melting point / freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporate rate	No data available
Flammability	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Slightly to insoluble
Partition coefficient: n-octoanol/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

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: None under normal processing.

Conditions to avoid: Keep away from air and light.

Materials to avoid: Oxidizing agents

Hazardous decomposition products: Carbon oxides. Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 no data available
Inhalation LC50 no data available
Dermal LD50 no data available
The toxicological effects of this product have not been thoroughly studied.

Skin corrosion/irritation: Irritating to skin.

Serious eye damage/eye irritation: Irritating to eyes.

Respiratory or skin sensitization: May be irritating to respiratory tract & mucus membranes

Germ cell mutagenicity: no data available

Carcinogenicity

IARC: 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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Additional Information RTECS: DTT # EK1610000

12. ECOLOGICAL INFORMATION

Toxicity: no information available, Avoid release into the environment.

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) class 9 exemption. This item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

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.

16. OTHER INFORMATION

Classification according to 29 CFR 1910.1200 and Regulation (EC) Nr. 1272/2008

Prepared by: Regulatory Department - Prolume Inc.

 The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.
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: 06/01/2020

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