
SECTION 1: Identification

GHS Product identifier

Product name(s)	Firefly Luciferase mRNA, FLuc mRNA
Product number	VRN-FLUC
Cas number	Not applicable

Supplier's details

Name	Vernal Biosciences
Address	261 Mountain View Dr. Colchester, VT 05446 USA

Telephone	(802) 440-1869
Email address:	info@vernal.bio

Emergency phone number

802-440-1869 (8 am - 5 pm EST)

SECTION 2: Hazard identification

Classification of the substance or mixture

Not a dangerous substance or mixture.

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

Not a dangerous substance or mixture.

GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

Hazard statement(s)

No GHS hazards.

SECTION 3: Composition/information on ingredients

Mixtures

No ingredients are hazardous according to OSHA criteria. No specific hazard.

SECTION 4: First-aid measures

Description of necessary first-aid measures

Safety Data Sheet

Firefly Luciferase mRNA

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
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	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed

No data available.

Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards arising from the chemical

No data available.

Special protective actions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. For personal protection see section 8.

Environmental precautions

No data available.

Methods and materials for containment and cleaning up

Contain spillage, disposal according to local regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
For precautions see section 2.2

Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Specific end use(s)

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Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

Control parameters

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Wash and dry hands.

Body protection

Wear suitable laboratory appropriate protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Environmental exposure controls

Prevent further leakage or spillage if safe to do so.

SECTION 9: Physical and chemical properties

Physical state	Liquid
Appearance (physical state, color, etc.)	Colorless
Odor	No data available.
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability or explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	No data available.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.

Additional properties

Explosive properties	No data available.
Oxidizing properties	No data available.

SECTION 10: Stability and reactivity

Reactivity

No data available.

Safety Data Sheet

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Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available.

Conditions to avoid

Strong acids, Strong bases

Incompatible materials

No data available.

Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No data available.

Skin corrosion/Irritation:	No data available.
Serious eye damage/Eye Irritation:	No data available.
Skin or respiratory sensation:	No data available.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	No data available.
Reproductive toxicity:	No data available.
Developmental toxicity:	No data available.
Teratogenicity:	No data available.
STOT – Single exposure:	No data available.
STOT – repeated exposure:	No data available.
Target organs:	No data available.
Chronic toxicity:	No data available.
Subchronic toxicity:	No data available.
Neurological effects:	No data available.
Aspiration Hazard:	No data available.
Other adverse effects:	No data available.

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

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Results of PBT and vPvB assessment

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Contact a licensed professional waste disposal service to dispose of this material.

Packaging disposal

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

This product is considered to be non-hazardous for transport.

IMDG

UN Number: No data available.

Class: No data available.

Packing Group: No data available.

EMS Number: No data available.

Proper Shipping Name: No data available.

IATA

UN Number: No data available.

Class: No data available.

Packing Group: No data available.

Proper Shipping Name: No data available.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65 Components

This material does not contain any chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know Components

No components are subject to the New Jersey Right to Know Act.

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Pennsylvania Right To Know Components

No components are subject to the Pennsylvania Right to Know Act.

SECTION 16: Other information

Hazardous Material Information System (USA)

Health Hazard: 0

Flammability: 0

Physical Hazard: 0

Chronic Health Hazard: 0

National Fire Protection Association (USA)

Health Hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0

Other comments

To the best of our knowledge, the information contained herein is accurate. Neither the supplier nor any of its subsidiaries assume 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.