

8100 Southpark Way, A-8 Littleton, CO 80120

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Material Safety Data Sheet

NovaLume Atto Chemiluminescent Substrate (AP) (NBP2-61914 - Single Component)

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: NovaLume Atto Chemiluminescent Substrate (AP)

Product Form: Mixture

Product Catalog Number: NBP2-61914

1.2. Relevant identified uses of the substance or mixture and uses advised

against Use of the substance/ mixture: For in vitro research and manufacturing use only

1.3 Details of the supplier of the safety data sheet

Novus Biologicals, LLC 8100 Southpark Way, A-8 Littleton, CO 80120

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1.4. Emergency telephone number

Emergency number: CHEMTREC: 1-800-424-9300 (US and Canada) / 1-703-527-3887

(International)

2. Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture

2.2. Label elements GHS-US labeling

Not a hazardous substance or mixture

Signal Word:

Not hazardous

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Health hazard

Not hazardous

Physical hazards

Not hazardous

Principal Routes of Exposure/ Potential Health effects

Eyes: May cause eye irritation with susceptible persons. Skin: May cause skin irritation in susceptible persons.

Inhalation: may be harmful by inhalation. Ingestion: May be harmful if swallowed.

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

None

3. Composition/information on ingredients

3.2.Substance

Synonyms:

CHEMICAL NAME: [(4-Methoxy(D3)-4-(3-phosphoryloxy-4-chlorophenyl)] spiro [1,2-

dioxetane-3, 2'-adamantane], disodium salt <1.0 % CHEMICAL FORMULA: C18H17D3CIO7PNa2

FORMULA WEIGHT: 431.64

CHEMICAL ABSTRACTS SERVICES NUMBER: unclassified CHEMICAL FAMILY: 1,2-Dioxetanes, soluble in aqueous system

Sodium azide: <0.1%

4. First aid measures

4.1 Description of first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration

In case of skin contact: Wash off with soap and plenty of water In case of eye contact: Flush eyes with water as a precaution

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/injuries: Not expected to present a significant hazard under anticipated

conditions of normal use

Symptoms/injuries after inhalation: No data available Symptoms/injuries after skin contact: No data available

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Symptoms/injuries after eye contact: No data available Symptoms/injuries after ingestion: No data available

Chronic symptoms: No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas. For personal protection see section 8

6.1.1. For non-emergency personnel

Protective equipment: Wear Protective equipment as described in Section 8

Emergency procedures: Evacuate unnecessary personnel

6.1.2. For emergency responders

Protective equipment: Wear suitable protective clothing, gloves and eye or face protection; approved air respirator, in case of emergency

6.2 Environmental precautions

No special environmental precautions required

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal

6.4 Reference to other sections

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For disposal see section 13.

7. Handling and storage

7.1 Precautions for safe handling

Use appropriate personal protection equipment (PPE); Keep away from sources of ignition; Wash hands and other exposed areas with mild soap and water before eating and drinking; For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well ventilated area Recommended storage temperature 2-8 °C; Light sensitive; Storage class (TRGS 510) - Non Combustible Liquids

7.3 Specific end use(s)

No other information available

8. Exposure controls/personal protection

8.1 Control parameters

No data available

8.2 Exposure controls

Appropriate engineering controls: General industrial hygiene practice.

Personal protective equipment:

Eye/face protection: Chemical goggles or safety glasses

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique 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: Where excessive vapor, mist, or dust may result, use NIOSH

approved respiratory protection

Body Protection: Lab coat. Wear suitable protective clothing. Wear long sleeves **Control of environmental exposure:** No special environmental precautions required.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Liquid Color: Clear, Colorless

Odor: None

Odor Threshold: No data available

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pH: 9.50 - 9.75

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: No data available

Upper/lower flammability or explosive limits: No data available Vapour pressure: No data

available

Vapour density: No data available Relative density: No data available

Water solubility: Complete

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: Not explosive Oxidizing properties: Not an oxidizer

9.2 Other safety information

No data available

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Keep away from strong acids, strong bases, and strong oxidizers. Avoid exposure to heat and light.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

No decomposition products posing significant hazards would be expected

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11. Toxicological information

11.1 Information on toxicological effects

Primary Routes of Exposure: Eye contact, ingestion, inhalation, and skin contact.

Acute toxicity: No data available Inhalation: No data available Dermal: Causes mild skin irritation

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No ingredients in this product are listed as carcinogens by ACGIH, IARC,

NTP, OSHA or 67/548/EEC Annex I Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure: Not classified Specific target organ toxicity (repeated exposure: Not classified

Aspiration hazard: Not classified

Symptoms/injuries after inhalation: No data available Symptoms/injuries after skin contact: No data available Symptoms/injuries after eye contact: No data available Symptoms/injuries after ingestion: No data available

Chronic symptoms: No data available

Additional Information: RTECS not available.

To the best of our understanding, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

12.1 Toxicity

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

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12.5 Other adverse effects

No additional information available

13. Disposal considerations

13.1 Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging: Dispose of as unused product.

14. Transport information

DOT (US): Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

15. Regulatory information

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 (DeMinimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

Acute Health Hazard.

Massachusetts Right To Know Components:

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

Pennsylvania Right To Know Components:

Water, CAS-No.7732-18-5

New Jersey Right To Know Components:

Water, CAS-No.7732-18-5

[(4-Methoxy(D3)-4-(3-phosphoryloxy-4-chlorophenyl)] spiro [1,2-dioxetane-3, 2'-adamantane], disodium salt, CAS: not classified

California Prop. 65 Components:

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

16. Other information

Full text of H-Statements referred to under sections 2 and 3.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

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HMIS Rating

Health hazard: 2

Chronic Health Hazard: 0

Flammability: 0 Physical Hazard: 0

NFPA Rating

Health hazard: 2 Fire Hazard: 0 Reactivity Hazard: 0

Other information

The above information is believed to be correct and may not be all conclusive; however, it should only be used as a guide. ImmunO4, LLC makes no representation of its accuracy or completeness. Recipients of this information must exercise their independent judgment in determining the product's safety and suitability for its intended use. ImmunO4, LLC. shall not be held liable for any damage resulting from handling or contact with this above product. These products are for research and manufacturing use only and are not intended for use in humans, therapeutic or diagnostic purposes. Sales are without any seller's warranty or representation, expressed or implied, by usage or otherwise; no claims beyond replacement of unacceptable material or refund of purchase price shall be allowed. All claims must be made within 30 days following date of delivery