



## SAFETY DATA SHEET

Doc. ID: G-501-75 Rev. AA  
Issued (year/month/day) 2015/05/18

### Section 1 Identification of the Substance/mixture and of the Company/undertaking

#### 1.1 Product Identifier

**Product Name** Lumi-Gal 530 Chemiluminescent Reagent

**Part Number** G-501

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

**Product Use** For laboratory use only. See product literature for details.

#### 1.3 Details of the supplier of the safety data sheet

##### Manufacturer

Lumigen, Inc. (A Beckman Coulter company)  
22900 W. Eight Mile Road  
Southfield, MI 48033, U.S.A.  
Tel: 248-351-5600

**e-mail address** ksrashid@beckman.com

#### 1.4 Emergency telephone number

**Telephone number (24H)** ChemTel Expert Assistance  
Hotline/MSDS Fax Access by dialing 800-255-3924 or for  
International +01-813-248-0585

### Section 2 Hazards Identification

#### 2.1 Classification of substance or mixture

**Product Description** Mixture  
Yellow/Green; Clear; Liquid; Ammonia-like

##### Classification according to EC 1272/2008 (CLP/GHS)

Not classified as hazardous per EC 1272/2008 (CLP/GHS)

##### Classification according to EC Directives 1999/45/EC and 67/548/EEC

Xi; R36/37/38

##### Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS

Skin Irritation Category 3  
Carcinogenicity Category 2

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## Section 2 Hazards Identification (Continued)

### 2.2 Label Elements

According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS

#### Hazardous Ingredients

2-Amino-2-methyl-1-propanol

1,4-Dioxane

#### Pictogram



#### Signal Word

WARNING

#### Hazard Statements

H316 Causes mild skin irritation.

H351 Suspected of causing cancer.

#### Precautionary Statements

P201 Obtain special instructions before use.

P280 Wear protective gloves, protective clothing and eye/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/national regulations  
Product label will display most significant precautionary statements.

### 2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

This product contains material(s) of animal origin. Observe general safety guidelines for protection when handling this product.

See Section 11 Toxicological Information for more detailed health information.

## Section 3 Composition and Information on Ingredients

### 3.2 Mixtures

Hazardous Ingredients:		Hazard Classification of Pure Ingredients			
Chemical Name	% by wt.	EU-67/548/EEC	EU 1272/2008 CLP/GHS	GHS	
2-Amino-2-methyl-1-propanol CAS # 124-68-5 EINECS # 204-709-8 Index # 603-070-00-6	4-6	Xi;R36/38 R52/53	Aquatic Longterm 3 Eye Irrit. 2 Skin Irrit. 2 H315; H319; H412	Acute Tox. Dermal 5 Acute Tox. Oral 5 Aquatic Longterm 3 Eye Irrit. 2 Skin Irrit. 2 H303; H313; H315; H319; H412	

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## Section 3 Composition and Information on Ingredients (Continued)

1,4-Dioxane CAS # 123-91-1 EINECS # 204-661-8 Index # 603-024-00-5	0.5-1	F;R11-19 Xn;R36/37-40-66 Carc. Cat. 3	Carc. 2 Eye Irrit. 2 Flam. Liq. 2 STOT SE 3 H225; H319; H335; H351	Acute Tox. Oral 5 Carc. 2 Eye Irrit. 2 Flam. Liq. 2 STOT SE 3 H225; H303; H319; H335; H351	
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See section 8 for available Occupational exposure limits

See Section 15 for additional regulatory information

See Section 16 for hazard class, hazard statements and risk phrase description

## Section 4 First Aid Measures

### 4.1 Description of first aid measures

<b>Inhalation</b>	If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.
<b>Eye Contact</b>	If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.
<b>Skin Contact</b>	In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If pain or irritation occur, obtain medical attention.
<b>Ingestion</b>	If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

See Section 11 Toxicological Information for more detailed health information.  
Causes mild skin irritation.  
Suspected of causing cancer.

### 4.3 Indication of any immediate medical attention and special treatment needed

No specific medical attention or treatment required.

## Section 5 Fire Fighting Measures

**Flammable Properties** Nonflammable aqueous solution.

**5.1 Extinguishing Media** In case of fire use carbon dioxide (CO<sub>2</sub>), dry chemical, water spray or foam.  
For large fires use extinguishing media suitable for surrounding fire.

### 5.2 Special hazards arising from the substance or mixture

#### Special Fire and Explosion Hazards

No special hazards determined.

#### Hazardous Combustion Products

No combustion products posing significant hazards are expected from this product (an aqueous solution).

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### Section 5 Fire Fighting Measures (Continued)

#### 5.3 Advice for fire fighters

##### Protective Equipment

Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

#### 5.4 Additional information

No further relevant information available.

### Section 6 Accidental Release Measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

##### Personal Precautions

Observe general safety guidelines for protection; avoid eye and skin contact. Wear protective gloves, protective clothing and eye/face protection. This product contains a material of animal origin. Observe general safety guidelines for protection during clean up procedures.

#### 6.2 Environmental Precautions

Do not allow the undiluted product to enter sewers/surface or ground water.

#### 6.3 Methods and material for containment and cleaning up

##### Spill and Leak Procedures

Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

#### 6.4 Reference to other sections

Refer sections 8 and 13.

### Section 7 Handling and Storage

#### 7.1 Precautions for safe handling

This product should be handled as though capable of transmitting infectious diseases. Universal precautions should be followed when using this product.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep away from incompatible material (see Section 10).  
To maintain efficacy, store according to the instructions in the product labeling.

#### 7.3 Specific end uses

No further relevant information available.

### Section 8 Exposure Controls and Personal Protection

#### 8.1 Control parameters

##### Exposure Limits

##### US OSHA

None established

##### ACGIH

None established

##### DFG MAK

None established

##### Ireland

None established

##### IOELVs

None established

##### NIOSH

None established

##### Japan

None established

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## Section 8 Exposure Controls and Personal Protection (Continued)

### 8.2 Exposure controls

#### Engineering Controls

No special engineering controls are required. Use with good general ventilation.

#### Eye Protection

Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.

#### Skin Protection

Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.

#### Respiratory Protection

Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

## Section 9 Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Specific Gravity (Water=1.0)</b>	1.0
<b>Color</b>	Yellow/Green	<b>Solubility</b>	
<b>Transparency</b>	Clear	<b>Water</b>	Soluble
<b>Odor</b>	Ammonia-like	<b>Organic</b>	Not determined
<b>pH</b>	9.60 @25°C	<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Freezing Point</b>	Not determined	<b>Auto-ignition Temp.</b>	Not applicable
<b>Boiling Point</b>	100°C (212°F)	<b>Decomposition Temperature</b>	Not determined
<b>Flash Point</b>	Not applicable	<b>Percent Volatiles</b>	Not available
<b>Evaporation Rate</b>	Not determined	<b>Vapor Pressure</b>	Not determined
<b>Flammability (Solid, Gas)</b>	Not available	<b>Viscosity</b>	Not determined
<b>Flammability Limits</b>	Not applicable	<b>Explosive Properties</b>	Not applicable
<b>Vapor Density</b>	Not determined	<b>Oxidizing Properties</b>	Not determined
<b>Odor Threshold</b>	Not applicable		

### 9.2 Other Information

No further relevant information available.

## Section 10 Stability and Reactivity

### 10.1 Reactivity

No data available.

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### Section 10 Stability and Reactivity (Continued)

<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of hazardous reactions</b>	No further relevant information available.
<b>10.4 Conditions to Avoid</b>	To maintain product performance keep away from strong acids, strong bases, strong oxidizers. Avoid exposure to heat and direct sunlight.
<b>10.5 Incompatible materials</b>	No further relevant information available.
<b>10.6 Hazardous Decomposition Products</b>	No decomposition products posing significant hazards would be expected from this product (an aqueous solution).

### Section 11 Toxicological Information

<b>11.1 Information on toxicological effects</b>	
<b>Toxicity Data for Hazardous Ingredients</b>	Not applicable
<b>Primary Routes of Exposure</b>	Common routes of entry include inhalation, ingestion and eye/skin contact. Specific paths of concern for potentially infectious materials are skin puncture, contact with broken skin, contact with mucous membranes and inhalation of aerosolized material.
<b>Skin Corrosion/Irritation</b>	Causes mild skin irritation.
<b>Serious eye damage/eye irritation</b>	No data available.
<b>Respiratory/skin sensitization</b>	No data available.
<b>Carcinogenicity</b>	Suspected of causing cancer.
<b>Germ cell mutagenicity</b>	No data available
<b>Reproductive Toxicity</b>	No data available.
<b>Specific target organ toxicity – single exposure</b>	No data available.
<b>Specific target organ toxicity – repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	No data available.
<b>Other Information</b>	This product contains material of animal origin and should be considered as potentially capable of transmitting infectious diseases.

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### Section 12 Ecological Information

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| <b>12.1 Ecotoxicity</b>                        |  |
| <b>Fresh Water Species</b>                     | No information available.  |
| <b>Microtox</b>                                | No information available.  |
| <b>Water Flea</b>                              | No information available.  |
| <b>Fresh Water Algae</b>                       | No information available.  |
| <b>12.2 Persistence and degradability</b>      | No information available.  |
| <b>12.3 Bioaccumulation</b>                    | No information available.  |
| <b>12.4 Mobility in soil</b>                   | No information available.  |
| <b>12.5 Results of PBT and vPvB assessment</b> |  |
|  | Not determined for the product. PBT: Not applicable, vPvB: Not applicable. |
| <b>12.6 Other Adverse Effects</b>              | Harmful to aquatic life with long lasting effects.                         |

### Section 13 Disposal Considerations

- |                                     |   |
|-------------------------------------|---|
| <b>13.1 Waste treatment methods</b> |   |
| <b>Product Waste Disposal</b>       | Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.<br>Dispose of as potentially biohazardous waste and in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or approved waste-disposal company for information. |
| <b>Package disposal</b>             | Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.   |
| <b>13.2 Additional information</b>  | Suggested European waste catalogue 18 01 06* - chemicals consisting of or containing dangerous substances. Dispose in accordance with national, state and local waste regulations.  |

### Section 14 Transport Information

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

### Section 15 Regulatory Information

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| <b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b> |  |
| <b>US Federal and State Regulations</b>  |  |
| <b>SARA 313</b>  | Hydrochloric Acid is subject to reporting requirements of Section 313, Title III of SARA. 1.0 % de minimis concentration |
| <b>CERCLA RG's, 40 CFR 302.4</b>   | Hydrochloric Acid is listed.   |

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## Section 15 Regulatory Information (Continued)

**California Proposition 65** No ingredients listed.

**Massachusetts MSL** Hydrochloric Acid is listed.

**New Jersey Dept. of Health RTK List**

Hydrochloric Acid is listed.

**Pennsylvania RTK** Hydrochloric Acid is listed.

### EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

**Water Hazard Class (Germany)** WGK 1, low water endangering

**REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.**

No ingredients listed.

**According to EC Directives (1999/45/EC and 67/548 EEC)**

Irritant  
Xi



### **Risk and Safety Phrases**

R36/37/38 Irritating to eyes, respiratory system and skin.

S24 Avoid contact with skin.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of soap and water.

### Canada

**WHMIS Classification:**

D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Skin Irritation)

D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Eye Irritation)

**PIN**

Not applicable

**Ingredients on Ingredient Disclosure List**

1,4-Dioxane

**Ingredients with unknown toxicological properties**

None

**15.2 Chemical Safety Assessment** A Chemical Safety Assessment has not been carried out.

*Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.*

## Section 16 Other Information

<b>Safety Ratings</b>	<b>Flammability: 0</b> <b>Health: 2</b> <b>Reactivity with Water: 0</b> <b>Contact: 2</b>	Code 0=None 1=Slight 2=Caution 3=Severe
<b>Revision Changes</b>	New document	
<b>Hazard Class, hazard statements and risk phrase description from section 3</b>	Carc. Cat. 3 - Carcinogen Category 3 F - Highly flammable	



## Section 16 Other Information (Continued)

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Xi - Irritant

Xn - Harmful

R11 Highly flammable.

R19 May form explosive peroxides.

R36/37 Irritating to eyes and respiratory system.

R40 Limited evidence of a carcinogenic effect

R66 Repeated exposure may cause skin dryness or cracking.

R36/38 Irritating to eyes and skin.

Acute Tox. Dermal 5 - Acute Toxicity Dermal, Category 5

Acute Tox. Oral 5 - Acute Toxicity Oral, Category 5

Carc. 2 - Carcinogenicity Category 2

Eye Irrit. 2 - Eye Irritation Category 2

Flam. Liq. 2 - Flammable Liquids, Category 2

Aquatic Longterm 3 - Aquatic Hazard Long term, Category 3

Skin Irrit. 2 - Skin Irritation Category 2

STOT SE 3 - Specific Target Organ Toxicity Single Exposure Category 3

H225 - Highly flammable liquid and vapour.

H303 - May be harmful if swallowed

H313 - May be harmful in contact with skin

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

H351 - Suspected of causing cancer.

H412 - Harmful to aquatic life with long lasting effects.

### Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists

ADR - European Agreement Concerning The International Carriage Of Dangerous Goods By Road

CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act

CLP - Classification, Labeling and Packaging

DFGMAK - Republic Germany's maximum exposure limit

GHS - Globally Harmonized System

HCS - Hazard Communication Standard

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

ICAO - International Civil Aviation Organization

IMDG - International Maritime Dangerous Goods

IOELVs - European Unions' Indicative Occupational Exposure Limit Values

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OSHA - Occupational Safety and Health Administration

PBT - Persistent bioaccumulative and toxic substances

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## Section 16 Other Information (Continued)

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SARA - Superfund Amendments and Reauthorization Act  
TDG - Canadian Transportation Of Dangerous Goods Regulations.  
UN GHS - United Nations Globally Harmonized System  
US DOT - United States Department of Transportation  
WHMIS - Workplace Hazardous Material Information System  
vPvB - Very persistent and very bioaccumulative substances

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