



SAFETY DATA SHEET

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

1.1 Product Identifier

Product Name Lumigen HyPerBlu Chemiluminescent Reagent
Part Number HPB-00005, HPB-00008, HPB-0050, HPB-100, HPB-1000, HPB-500

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
Colorless; Clear; Liquid; Odorless

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

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

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

Skin Irritation Category 3

2.2 Label Elements

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

Hazardous Ingredients

Tris(hydroxymethyl)- aminomethane

Pictogram

None

Signal Word

WARNING

Section 2 Hazards Identification (Continued)

Hazard Statements

H316 Causes mild skin irritation.

Precautionary Statements

P332+P313 If skin irritation occurs: Get medical advice/attention.
Product label will display most significant precautionary statements.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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	
Tris(hydroxymethyl)-aminomethane CAS # 77-86-1 EINECS # 201-064-4 Index # Not available	3-5	Xi;R36/37/38	Eye Irrit. 2 STOT SE 3 Skin Irrit. 2 H315; H319; H335	Eye Irrit. 2 STOT SE 3 Skin Irrit. 2 H315; H319; H335	

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

Inhalation

If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.

Eye Contact

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.

Skin Contact

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.

Ingestion

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.

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 (CO2), 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).
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.
6.2 Environmental Precautions	No special requirements.
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	Use good laboratory procedures; avoid eye and skin contact.
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

Section 8 Exposure Controls and Personal Protection (Continued)

ACGIH	None established
DFG MAK	None established
Ireland	None established
IOELVs	None established
NIOSH	None established
Japan	None established
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

Physical State	Liquid	Specific Gravity (Water=1.0)	1.0
Color	Colorless	Solubility	
Transparency	Clear	Water	Soluble
Odor	Odorless	Organic	Not determined
pH	9.35 @25°C	Partition coefficient: n-octanol/water	Not determined
Freezing Point	Not determined	Auto-ignition Temp.	Not applicable
Boiling Point	100°C (212°F)	Decomposition Temperature	Not determined
Flash Point	Not applicable	Percent Volatiles	Not available
Evaporation Rate	Not determined	Vapor Pressure	Not determined
Flammability (Solid, Gas)	Not available	Viscosity	Not determined
Flammability Limits	Not applicable	Explosive Properties	Not applicable

Section 9 Physical and Chemical Properties (Continued)

Vapor Density	Not determined	Oxidizing Properties	Not determined
Odor Threshold	Not applicable		
9.2 Other Information	No further relevant information available.		

Section 10 Stability and Reactivity

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

Section 11 Toxicological Information

11.1 Information on toxicological effects	
Toxicity Data for Hazardous Ingredients	Not applicable
Primary Routes of Exposure	Eye contact, ingestion, inhalation, and skin contact.
Skin Corrosion/Irritation	Causes mild skin irritation.
Serious eye damage/eye irritation	No data available.
Respiratory/skin sensitization	No data available.
Carcinogenicity	No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.
Germ cell mutagenicity	No data available
Reproductive Toxicity	No data available.
Specific target organ toxicity – single exposure	No data available.
Specific target organ toxicity – repeated exposure	No data available.

Section 11 Toxicological Information (Continued)

Aspiration hazard	No data available.
Other Information	No further relevant information available.

Section 12 Ecological Information

12.1 Ecotoxicity	
Fresh Water Species	No information available.
Microtox	No information available.
Water Flea	No information available.
Fresh Water Algae	No information available.
12.2 Persistence and degradability	No information available.
12.3 Bioaccumulation	No information available.
12.4 Mobility in soil	No information available.
12.5 Results of PBT and vPvB assessment	Not determined for the product. PBT: Not applicable, vPvB: Not applicable.
12.6 Other Adverse Effects	No further relevant information available.

Section 13 Disposal Considerations

13.1 Waste treatment methods	
Product Waste Disposal	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.
Package disposal	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.
13.2 Additional information	Suggested European waste catalogue 18 01 07 - chemicals other than those mentioned in 18 01 06. 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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
<u>US Federal and State Regulations</u>	
SARA 313	Hydrochloric Acid is subject to reporting requirements of Section 313, Title III of SARA. 1.0 % de minimis concentration

Section 15 Regulatory Information (Continued)

CERCLA RG's, 40 CFR 302.4 Hydrochloric Acid is listed.

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)

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

Canada

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

PIN Not applicable

Ingredients on Ingredient Disclosure List

Methanol

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

Safety Ratings	Flammability: 1 Health: 2 Reactivity with Water: 0 Contact: 1	Code 0=None 1=Slight 2=Caution 3=Severe
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Revision Changes New document

Hazard Class, hazard statements and risk phrase description from section 3

Xi - Irritant

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

Eye Irrit. 2 - Eye Irritation Category 2

Skin Irrit. 2 - Skin Irritation Category 2

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

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Section 16 Other Information (Continued)

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
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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