

Kit SDS Cover SheetDoc. ID: PSA-100-75: Rev. AB
Revised (year/month/day) 2015/07/20

Product Information

Product Name	Lumi-Phos HRP Chemiluminescent Reagent (Lumigen PS-atto)
Part Number	PSA-100, PSA-1000

Components

Description	Lumi-Phos HRP Solution A Chemiluminescent Reagent (Lumigen PS-atto) Lumi-Phos HRP Solution B Chemiluminescent Reagent (Lumigen PS-atto)
--------------------	--

Transport Information

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



SAFETY DATA SHEET

Doc. ID: PSA-100-75 Rev. AB
Revised (year/month/day) 2015/07/20

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

1.1 Product Identifier

Product Name Lumi-Phos HRP Solution A Chemiluminescent Reagent (Lumigen PS-atto)
Part Number Component of P/N PSA-100, PSA-1000

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

Distributor and Emergency Phone No.

Refer to attached list, Document ID: [472050](#), for local distributor and emergency phone numbers.

Section 2 Hazards Identification

2.1 Classification of substance or mixture

Product Description Mixture
Clear; Clear; Liquid; Alcohol odor

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

Flammable Liquids, Category 3

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

Flammable Liquids, Category 3
Skin Irritation Category 3

Section 2 Hazards Identification (Continued)

2.2 Label Elements

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

Hazardous Ingredients

Ethyl Alcohol

Urea Hydrogen Peroxide

Pictogram



Signal Word

WARNING

Hazard Statements

H226 Flammable liquid and vapour.

H316 Causes mild skin irritation.

Precautionary Statements

P210 Keep away from heat, hot surfaces, and sparks. No smoking.

P233 Keep container tightly closed.

P240 Ground container and receiving equipment.

P241 Use explosion-proof electrical equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharge.

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

P303+P361+P353 IF ON SKIN (or hair): Rinse skin with water.

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

P370+P378 In case of fire: Use water spray for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

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.

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	
Ethyl Alcohol CAS # 64-17-5 EINECS # 200-578-6 Index # 603-002-00-5	2-4	F;R11	Flam. Liq. 2 H225	Flam. Liq. 2 H225	

Section 3 Composition and Information on Ingredients (Continued)

Urea Hydrogen Peroxide CAS # 124-43-6 EINECS # 204-701-4 Index # Not available	0.2-0.5	O;R8 C;R34	Eye Dam. 1 Ox. Sol. 3 Skin Corr. 1B H272; H314; H318	Eye Dam. 1 Ox. Sol. 3 Skin Corr. 1B H272; H314; H318
---	---------	---------------	---	---

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 Flammable liquid and vapor.

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

Flammable liquid in aqueous solution; vapors may present fire hazard at elevated temperatures.

Hazardous Combustion Products

No information available.

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.

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

Ethyl Alcohol
CAS # 64-17-5 1000 ppm TWA; 1900 mg/m³ TWA

ACGIH

Ethyl Alcohol
CAS # 64-17-5 1000 ppm STEL

DFG MAK

Ethyl Alcohol
CAS # 64-17-5 1000 ppm Peak; 1920 mg/m³ Peak; 500 ppm TWA MAK; 960 mg/m³ TWA MAK

Ireland

Ethyl Alcohol
CAS # 64-17-5 1000 ppm STEL

Section 8 Exposure Controls and Personal Protection (Continued)

IOELVs	None established
NIOSH	
Ethyl Alcohol CAS # 64-17-5	3300 ppm IDLH (10% LEL); 1000 ppm TWA; 1900 mg/m3 TWA
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	Clear	Solubility	
Transparency	Clear	Water	Soluble
Odor	Alcohol odor	Organic	Not determined
pH	8.00 @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	58°C (136.4°F)	Percent Volatiles	Not applicable
Evaporation Rate	Not determined	Vapor Pressure	Not determined
Flammability (Solid, Gas)	Not applicable	Viscosity	Not determined
Flammability Limits	Not applicable	Explosive Properties	Not applicable
Vapor Density	Not determined	Oxidizing Properties	Not determined

Section 9 Physical and Chemical Properties (Continued)

Odor Threshold

Ethyl Alcohol 180 ppm geometric mean air odor threshold = (detectable); 100 ppm geometric mean air odor threshold = (recognizable)

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

Ethyl Alcohol
CAS # 64-17-5

Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h

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	
Ethyl Alcohol CAS # 64-17-5	96 h LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 h LC50 Pimephales promelas: >100 mg/L [static]; 96 h LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]
Microtox	No information available.
Water Flea	
Ethyl Alcohol CAS # 64-17-5	48 h LC50 Daphnia magna: 9268 - 14221 mg/L; 24 h EC50 Daphnia magna: 10800 mg/L; 48 h EC50 Daphnia magna: 2 mg/L [Static]
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 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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US Federal and State Regulations

SARA 313 No ingredients listed.

CERCLA RG's, 40 CFR 302.4 No ingredients listed.

California Proposition 65 Ethyl Alcohol has been identified by the State of California to cause cancer and reproductive harm. The State of California has adopted a regulation which requires a warning be given to individual who may be exposed to chemicals identified by the State to cause cancer or reproductive harm.
WARNING: This product contains a chemical known to the State of California to cause cancer and reproductive harm.

Massachusetts MSL Ethyl Alcohol is listed.

New Jersey Dept. of Health RTK List

Ethyl Alcohol is listed.
Urea Hydrogen Peroxide is listed.

Pennsylvania RTK Ethyl Alcohol 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)

Risk and Safety Phrases

R10 Flammable.

Canada

WHMIS Classification: B2 - Flammable and Combustible Material: Flammable Liquid

PIN Not applicable

Ingredients on Ingredient Disclosure List

Ethyl Alcohol

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: 2 Health: 1 Reactivity with Water: 0 Contact: 1	Code 0=None 1=Slight 2=Caution 3=Severe
-----------------------	--	---

Revision Changes

New document

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

C - Corrosive
 F - Highly flammable
 O - Oxidising
 R11 Highly flammable.
 R34 Causes burns.
 R8 Contact with combustible material may cause fire.
 Eye Dam. 1 - Eye Damage Category 1
 Flam. Liq. 2 - Flammable Liquids, Category 2
 Ox. Sol. 3 - Oxidizing Solids Category 3
 Skin Corr. 1B - Skin Corrosion Category 1B
 H225 - Highly flammable liquid and vapour.
 H272 - May intensify fire; oxidiser.
 H314 - Causes severe skin burns and eye damage.
 H318 - Causes serious eye damage.

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

Section 16 Other Information (Continued)

WHMIS - Workplace Hazardous Material Information System

vPvB - Very persistent and very bioaccumulative substances

LC50 - Lethal Concentration, 50%

Lumigen and Lumi-Phos are registered trademarks of Lumigen, Inc. The stylized logo is a trademark of Lumigen, Inc.

For further information, please contact your local Lumigen representative.

WHILE LUMIGEN BELIEVES THE INFORMATION CONTAINED HEREIN IS VALID AND ACCURATE, MAKES NO WARRANTY OR REPRESENTATION AS TO ITS VALIDITY, ACCURACY, OR CURRENCY. LUMIGEN SHALL NOT BE LIABLE OR OTHERWISE RESPONSIBLE IN ANY WAY FOR USE OF EITHER THIS INFORMATION OR MATERIALS TO WHICH IT APPLIES. DISPOSAL OF HAZARDOUS MATERIALS MAY BE SUBJECT TO LOCAL LAWS OR REGULATIONS.



SAFETY DATA SHEET

Doc. ID: PSA-100-75 Rev. AB
Revised (year/month/day) 2015/07/20

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

1.1 Product Identifier

Product Name Lumi-Phos HRP Solution B Chemiluminescent Reagent (Lumigen PS-atto)
Part Number Component of P/N PSA-100, PSA-1000

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

Distributor and Emergency Phone No.

Refer to attached list, Document ID: [472050](#), for local distributor and emergency phone numbers.

Section 2 Hazards Identification

2.1 Classification of substance or mixture

Product Description Mixture
Pale yellow; 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

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

Not classified as hazardous per US-OSHA HCS 2012 and UN GHS

2.2 Label Elements

According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS
Not classified as hazardous per EC 1272/2008 (CLP/GHS)

Section 2 Hazards Identification (Continued)

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: None

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.

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

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.

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.

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

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.

Section 8 Exposure Controls and Personal Protection (Continued)

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	Pale yellow	Solubility	
Transparency	Clear	Water	Soluble
Odor	Ammonia-like	Organic	Not determined
pH	8.00 @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 determined	Percent Volatiles	Not applicable
Evaporation Rate	Not determined	Vapor Pressure	Not determined
Flammability (Solid, Gas)	Not applicable	Viscosity	Not determined
Flammability Limits	Not applicable	Explosive Properties	Not applicable
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.

Section 10 Stability and Reactivity (Continued)

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

No data available.

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.

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.

Section 12 Ecological Information (Continued)

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	Methanol is subject to reporting requirements of Section 313, Title III of SARA. 1.0 % de minimis concentration
CERCLA RG's, 40 CFR 302.4	Methanol is listed.
California Proposition 65	Methanol has been identified by the State of California to cause reproductive harm. The State of California has adopted a regulation which requires a warning be given to individual who may be exposed to chemicals identified by the State to cause cancer or reproductive harm. WARNING: This product contains a chemical known to the State of California to cause reproductive harm.
Massachusetts MSL	Methanol is listed.

Section 15 Regulatory Information (Continued)

New Jersey Dept. of Health RTK List

Methanol is listed.

Pennsylvania RTK

Methanol 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

This product does not meet WHMIS criteria for hazardous materials.

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

Section 16 Other Information (Continued)

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

Lumigen and Lumi-Phos are registered trademarks of Lumigen, Inc. The stylized logo is a trademark of Lumigen, Inc.

For further information, please contact your local Lumigen representative.

WHILE LUMIGEN BELIEVES THE INFORMATION CONTAINED HEREIN IS VALID AND ACCURATE, MAKES NO WARRANTY OR REPRESENTATION AS TO ITS VALIDITY, ACCURACY, OR CURRENCY. LUMIGEN SHALL NOT BE LIABLE OR OTHERWISE RESPONSIBLE IN ANY WAY FOR USE OF EITHER THIS INFORMATION OR MATERIALS TO WHICH IT APPLIES. DISPOSAL OF HAZARDOUS MATERIALS MAY BE SUBJECT TO LOCAL LAWS OR REGULATIONS.