

**MATERIAL SAFETY DATA SHEET**

Date Revised: January 2, 2014

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Lumitein Protein Gel Stain, 100x  
**Catalog Number:** 21002/21002-1/21002-2  
**Unit Size:** 2mL/10mL/50mL  
**Manufacturer/Supplier:** Biotium, Inc.  
3159 Corporate Place, Hayward, CA 94545, USA  
Phone: 1-510-265-1027, Fax: 1-510-265-1352  
Web: <http://www.biotium.com>

**2. HAZARDS IDENTIFICATION****Classification according to Regulation (EC) No 1272/2008[CLP]**

Flammable liquids (Category 2)  
Acute toxicity, Oral (Category 3)  
Acute toxicity, Inhalation (Category 3)  
Acute toxicity, Dermal (Category 3)  
Specific target organ toxicity - single exposure (Category 1)  
Skin corrosion (Category 1A)  
Serious eye damage (Category 1)  
Skin sensitization (Category 1)  
Acute aquatic toxicity (Category 3)

**Labeling according to Regulation (EC) No 1272/2008[CLP]****Hazard pictogram****Signal word** Danger**Hazard statements**

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour
H303	May be harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled
H370	Causes damage to organs.
H402	Harmful to aquatic life.

**Precautionary statements**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P307+P311 IF exposed: Call a POISON CENTER or doctor/ physician.

**HMIS Classification**

Health hazard: 3

Flammability: 3

Physical hazards: 0

**NFPA Rating**

Health hazard: 3

Fire: 3

Reactivity Hazard: 0

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No.	EC No.	Index No.	Weight %	Classification according to regulation (EC)No1278/2008
Methanol	67-56-1	200-659-6	603-001-00-X	0-30%	See section 2
Acetic acid	64-19-7	200-580-7	607-002-00-6	0-30%	See section 2

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### 4. FIRST-AID MEASURES

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**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**

Flush eyes with water as a precaution.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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### 5. FIREFIGHTING MEASURES

**Suitable extinguishing media**

Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

**Special protective equipment for firefighters**

Wear self contained breathing apparatus for firefighting if necessary.

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### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

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**7. HANDLING AND STORAGE****Precautions for safe handling**

Avoid inhalation of vapor or mist.

Avoid direct contact with substance.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

Store at room temperature or 4 °C.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Substance Acetic acid

CAS no. 64-19-7

country	Austria	Belgium	Denmark	European Union	France	Germany
Limit value, 8hours	10ppm	10ppm	10ppm	10ppm	-	10ppm
Limit value, short term	20ppm	15ppm	20ppm	-	10ppm	20ppm

country	Hungary	Italy	Poland	Spain	Sweden	Netherlands
Limit value, 8hours	25mg/m3	10ppm-	15mg/m3	10ppm	5ppm	-
Limit value, short term	25mg/m3		30mg/m3	15ppm	10ppm	-

country	United Kingdom	USA-NIOSH	USA-OSHA	Australia	Canada	Japan	South Korea
Limit value, 8hours	10ppm	10ppm	10ppm	10ppm	10ppm	-	10ppm
Limit value, short term	15ppm	15ppm	-	15ppm	15ppm	-	15ppm

Substance Methanol

CAS no. 67-56-1

country	Austria	Belgium	Denmark	European Union	France	Germany
Limit value, 8hours	200ppm	200ppm	200ppm	200ppm	200ppm	200ppm
Limit value, short term	800ppm	250ppm	400ppm	-	1000ppm	800ppm

country	Hungary	Italy	Poland	Spain	Sweden	Netherlands
Limit	260mg/m3	200ppm-	100mg/m3	200ppm	200ppm	133mg/m3

value,8hours						
Limit value, short term	-	-	300mg/m3	250ppm	250ppm	-

country	United Kingdom	USA-NIOSH	USA-OSHA	Australia	Canada	Japan	South Korea
Limit value,8hours	200ppm	200ppm	200ppm	200ppm	200ppm	200ppm	200ppm
Limit value, short term	250ppm	250ppm	-	250ppm	250ppm	-	250ppm

**Personal protective equipment****Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) 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**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Eye protection**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Chemical Name	Lumitein Protein Gel Stain, 100x
Appearance	Liquid
Odor	Pungent
Odor threshold	No information available
pH	<7
Melting point/freezing point	No information available
Boiling point	No information available
Flash point	No information available
Evaporate rate	No information available
Flammability	No information available
Explosive limits	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	No information available
Solubility	No information available
Partition coefficient:n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

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**10. STABILITY AND REACTIVITY****Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

Heat, flames and sparks.

**Materials to avoid**

No data available

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - no data available

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**11. TOXICOLOGICAL INFORMATION****Acute toxicity****Methanol**

<b>Oral LD50</b>	LDLO Oral - Human - 143 mg/kg LD50 Oral - rat - 1,187 - 2,769 mg/kg
<b>Inhalation LC50</b>	LC50 Inhalation - rat - 4 h - 128.2 mg/l LC50 Inhalation - rat - 6 h - 87.6 mg/l
<b>Dermal LD50</b>	LD50 Dermal - rabbit - 17,100 mg/kg
<b>Other information on acute toxicity</b>	no data available

**Acetic acid**

<b>Oral LD50</b>	LD50 Oral - rat - 3,310 mg/kg
<b>Inhalation LC50</b>	LC50 Inhalation - mouse - 1 h - 5620 ppm LC50 Inhalation - rat - 4 h - 11.4 mg/l
<b>Dermal LD50</b>	LD50 Dermal - rabbit - 1,112 mg/kg
<b>Other information on acute toxicity</b>	no data available

**Skin corrosion/irritation** no data available**Serious eye damage/eye irritation** Eyes - rabbit - Corrosive to eyes**Respiratory or skin sensitization** May cause sensitization by skin contact**Germ cell mutagenicity** no data available**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity** no data available**Specific target organ toxicity - single exposure (Globally Harmonized System)**

Causes damage to organs.

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

**Additional Information**

RTECS: Methanol	PC1400000
Acetic acid	AF1225000

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**12. ECOLOGICAL INFORMATION****Toxicity**

Methanol	Toxicity to fish	mortality LC50 - <i>Lepomis macrochirus</i> (Bluegill) - 15,400.0 mg/l - 96 h
		NOEC - <i>Oryzias latipes</i> - 7,900 mg/l - 200 h
	Toxicity to daphnia	EC50 - <i>Daphnia magna</i> (Water flea) - > 10,000.00 mg/l - 48 h

Toxicity to algae	Growth inhibition EC50 - <i>Scenedesmus capricornutum</i> (fresh water algae) - 22,000.0 mg/l-96h
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Acetic acid	Toxicity to fish	semi-static test LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - > 1,000 mg/l - 96 h
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Toxicity to daphnia	EC50 - <i>Daphnia magna</i> (Water flea) - > 300.82 mg/l - 48 h
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**Persistence and degradability**

Methanol	aerobic	Result: 72 % - rapidly biodegradable
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Acetic acid	aerobic	Result: 99 % - Readily biodegradable.
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**Mobility in soil** no information available**Results of PBT and vPvB assessment** no information available**Other adverse effects** no information available**Additional information** no information available

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**13. DISPOSAL CONSIDERATIONS**

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

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**14. TRANSPORT INFORMATION****IATA, IMDG, DOT(US)** not dangerous good during transportation

UN number none

UN proper shipping name none

Transport hazard class none

Packing group none

Environmental hazards none

Special precaution for user none

## 15. REGULATION INFORMATION

### US Federal Regulations

Us Toxic Substances Control Act(TSCA): Not listed

SARA 302: No chemicals were found.

SARA 313: No chemicals were found.

SARA 311/312 Hazards: No chemicals were found.

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## 16. OTHER INFORMATION

Classification according to Regulation (EC) Nr. 1272/2008

Prepared by: Regulatory Department  
Biotium Inc.

Version no. 2

Reason for revision Application of CLP labeling and corresponding requirements

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. Biotium shall not be held liable for any damage resulting from handling or contact with the above product.