

SAFETY DATA SHEET

Date Revised: October 6, 2021

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Lumitein Protein Gel Stain, 1X
Catalog Number: 21001/21001-1/21001-2
Unit Size: 200mL/1L/5x1L
Manufacturer/Supplier: Biotium, Inc.
46117 Landing Parkway, Fremont, CA 94538, USA
Phone: 1-510-265-1027, Fax: 1-510-265-1352
Web: <http://www.biotium.com>

Use as laboratory reagent. For research use only. Not for food, drug, household, or cosmetic use.

2. HAZARDS IDENTIFICATION**GHS Classification****Signal word** Danger**Hazard statements** Highly flammable liquid and vapor. Toxic if swallowed, in contact with skin or inhaled. Causes damage to organs.**WHMIS classification** None**GHS hazard pictogram****HMIS Classification**

Health hazard: 3

Flammability: 3

Physical hazards: 0

NFPA Rating

Health hazard: 3

Fire: 3

Reactivity Hazard: 0

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)

Classification according to Directive 1999/45/EC None**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.

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	28%	See section 2
Acetic acid	64-19-7	200-580-7	607-002-00-6	13%	See section 2

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.

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.

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.

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.

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 value, 8hours	260mg/m3	200ppm-	100mg/m3	200ppm	200ppm	133mg/m3
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Lumitein Protein Gel Stain, 1x
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

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

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Methanol

Oral LD50 LDLO Oral - Human - 143 mg/kg

LD50 Oral - rat - 1,187 - 2,769 mg/kg

Inhalation LC50 LC50 Inhalation - rat - 4 h - 128.2 mg/l

LC50 Inhalation - rat - 6 h - 87.6 mg/l

Dermal LD50 LD50 Dermal - rabbit - 17,100 mg/kg

Other information on acute toxicity no data available

Acetic acid

Oral LD50 LD50 Oral - rat - 3,310 mg/kg

Inhalation LC50 LC50 Inhalation - mouse - 1 h - 5620 ppm

LC50 Inhalation - rat - 4 h - 11.4 mg/l

Dermal LD50 LD50 Dermal - rabbit - 1,112 mg/kg

Other information on acute toxicity 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 InformationRTECS: Methanol PC1400000
Acetic acid AF1225000

12. ECOLOGICAL INFORMATION**Toxicity**

Methanol	Toxicity to fish	mortality LC50 - Lepomis macrochirus (Bluegill) - 15,400.0 mg/l - 96 h
		NOEC - Oryzias latipes - 7,900 mg/l - 200 h
		Toxicity to daphnia EC50 - Daphnia magna (Water flea) - > 10,000.00 mg/l - 48 h
Toxicity to algae	Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 22,000.0 mg/l-96h	
Acetic acid	Toxicity to fish	semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 1,000 mg/l - 96 h
		Toxicity to daphnia EC50 - Daphnia magna (Water flea) - > 300.82 mg/l - 48 h

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

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATIONAcetic Acid**IATA, IMDG, DOT (US), TDG** Corrosive, Flammable Liquids**UN number** UN 2789**UN proper shipping name** Acetic acid, glacial**Transport hazard class** 3**Packing group** II**Environmental hazards** None**Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code** None**Special precaution for user** None

Methanol**IATA, IMDG, DOT (US), TDG** Corrosive, Flammable Liquids**UN number** UN 1230**UN proper shipping name** Methanol**Transport hazard class** 6.1**Packing group** II**Environmental hazards** None**Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code**

Proper shipping name Methyl Alcohol

Pollution category Y

Special precaution for user Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. REGULATION INFORMATIONMethanol**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: Fire hazard
Immediate (acute) health hazard**State Regulations**

Massachusetts The following components are listed: METHANOL

New York The following components are listed: Methanol

New Jersey The following components are listed: METHYL ALCOHOL; METHANOL

Pennsylvania The following components are listed: METHANOL

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.**WHMIS Hazard Class** NoneAcetic Acid**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: Fire hazard
Acute Health Hazard**WHMIS Hazard Class** None

16. OTHER INFORMATIONClassification according to Regulation (EC) Nr. 1272/2008
Refer to section 2 and section 3Prepared by: Regulatory Department
Biotium Inc.

Version no. 4

Revision date (Initials) 10/06/2020 (JD)

Reason for revision Percent by weight information was updated for acetic acid and methanol (section 3).

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.