



# MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 07/26/2013

Version 1.1

## SECTION 1. Identification

### Product identifier

Catalog No. 119158

Product name Standard samples for HPLC system qualification Set 2: Precision; 100 mg/l Methyl paraben in methanol / water (50:50) LiChroTest®

Methyl paraben 100 mg/l in methanol/water (50/50)

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

Identified uses Reagent for analysis

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

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

### Emergency telephone

800-424-9300 CHEMTREC (USA)  
+1-703-527-3887 CHEMTREC (International)  
24 Hours/day; 7 Days/week

## SECTION 2. Hazards identification

### GHS Classification

Flammable liquid, Category 2, H225

Acute toxicity, Category 3, Oral, H301

Acute toxicity, Category 3, Inhalation, H331

Acute toxicity, Category 3, Dermal, H311

Specific target organ systemic toxicity - single exposure, Category 1, H370

For the full text of the H-Statements mentioned in this Section, see Section 16.

### GHS-Labeling

*Hazard pictograms*



*Signal Word*

Danger

*Hazard Statements*

H225 Highly flammable liquid and vapor.

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H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.  
H370 Causes damage to organs.

## *Precautionary Statements*

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P280 Wear protective gloves/ protective clothing.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P309 + P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.  
P403 + P235 Store in a well-ventilated place. Keep cool.

## **OSHA Hazards**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

## **Other hazards**

None known.

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## **SECTION 3. Composition/information on ingredients**

Chemical nature                      Aqueous solution of organic compounds.

### **Hazardous ingredients**

*Chemical Name (Concentration)*

CAS-No.

*methanol (>= 30 % - < 50 % )*

67-56-1

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## **SECTION 4. First aid measures**

### **Description of first-aid measures**

*General advice*

First aider needs to protect himself.

*Inhalation*

After inhalation: fresh air. If breathing stops: immediately apply artificial respiration, if necessary oxygen. Immediately call in physician.

*Skin contact*

After skin contact: wash off with plenty of water. Remove contaminated clothing. Call a physician immediately.

*Eye contact*

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.

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### *Ingestion*

After swallowing: fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour).

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

irritant effects, Drowsiness, Dizziness, narcosis, agitation, spasms, inebriation, Nausea, Vomiting, Headache, blindness, Impairment of vision, Coma  
Drying-out effect resulting in rough and chapped skin.

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

No information available.

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## **SECTION 5. Fire-fighting measures**

### **Extinguishing media**

#### *Suitable extinguishing media*

Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Combustible material, Vapors are heavier than air and may spread along floors.  
Forms explosive mixtures with air at ambient temperatures.  
Pay attention to flashback.  
Development of hazardous combustion gases or vapors possible in the event of fire.

### **Advice for firefighters**

#### *Special protective equipment for fire-fighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### *Further information*

Cool closed containers exposed to fire with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6. Accidental release measures**

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

### **Environmental precautions**

Do not empty into drains. Risk of explosion.

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### Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

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## SECTION 7. Handling and storage

### Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapors/aerosols.

Observe label precautions.

### *Advice on protection against fire and explosion*

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

### Conditions for safe storage, including any incompatibilities

Tightly closed in a well-ventilated place, away from sources of ignition and heat. Accessible only for authorized persons.

Store at +5°C to +30°C (+41°F to +86°F).

The data applies to the entire pack.

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## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

#### Ingredients

Basis	Value	Threshold limits	Remarks
<i>methanol (67-56-1)</i>			
ACGIH	Time Weighted Average (TWA):	200 ppm	Can be absorbed through the skin.
	Short Term Exposure Limit (STEL):	250 ppm	
	Skin designation:		
NIOSH/GUIDE	Recommended exposure limit (REL):	200 ppm 260 mg/m <sup>3</sup>	Can be absorbed through the skin.
	Skin designation:		
	Short Term Exposure Limit (STEL):	250 ppm 325 mg/m <sup>3</sup>	
OSHA_TRANS	PEL:	200 ppm 260 mg/m <sup>3</sup>	
Z1A	Time Weighted Average (TWA):	200 ppm 260 mg/m <sup>3</sup>	Can be absorbed through the skin.
	Skin designation (Final Rule Limit applies):		
	Short Term Exposure Limit (STEL):	250 ppm 325 mg/m <sup>3</sup>	

### Engineering measures

#### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

#### Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

#### Eye/face protection

Safety glasses

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

#### Other protective equipment:

Flame retardant antistatic protective clothing

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## *Respiratory protection*

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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## SECTION 9. Physical and chemical properties

Physical state	liquid
Color	colorless
Odor	methanolic
Odor Threshold	No information available.
pH	No information available.
Melting point	No information available.
Boiling point	No information available.
Flash point	< 70 °F (< 21 °C)
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No information available.
Relative density	0.915 g/cm <sup>3</sup> at 68 °F (20 °C)
Water solubility	at 68 °F (20 °C) soluble
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.

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Viscosity, dynamic	No information available.
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### SECTION 10. Stability and reactivity

#### Reactivity

Vapors may form explosive mixture with air.

#### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

#### Possibility of hazardous reactions

Risk of explosion with:

Oxidizing agents, perchloric acid, perchlorates, salts of oxyhalogenic acids, chromium(VI) oxide, halogen oxides, nitrogen oxides, nonmetallic oxides, chromosulfuric acid, chlorates, hydrides, zinc diethyl, halogens, magnesium, hydrogen peroxide, Nitric acid

Exothermic reaction with:

acid halides, Acid anhydrides, Reducing agents, acids

Generates dangerous gases or fumes in contact with:

Alkaline earth metals, Alkali metals

#### Conditions to avoid

Warming.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

#### Incompatible materials

various plastics, magnesium, zinc alloys

#### Hazardous decomposition products

no information available

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### SECTION 11. Toxicological information

#### Information on toxicological effects

*Likely route of exposure*

Eye contact, Skin contact

*Target Organs*

Eyes

Skin

Respiratory system

Central nervous system

gastrointestinal tract

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## *Acute oral toxicity*

Acute toxicity estimate: 225.53 mg/kg

Calculation method

absorption

## *Acute inhalation toxicity*

Acute toxicity estimate: 6.77 mg/l

Calculation method

Symptoms: Irritation symptoms in the respiratory tract.

absorption

## *Acute dermal toxicity*

Acute toxicity estimate : 676.59 mg/kg

Calculation method

absorption

## *Skin irritation*

Drying-out effect resulting in rough and chapped skin.

## *Eye irritation*

Irritations of mucous membranes

## *Specific target organ systemic toxicity - single exposure*

Mixture causes damage to organs.

## *Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

## *Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

## **Carcinogenicity**

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential



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carcinogen by ACGIH.

### Further information

Quantitative data on the toxicity of this product are not available.

Further toxicological data:

Systemic effects:

acidosis, drop in blood pressure, agitation, spasms, inebriation, Dizziness, Drowsiness,  
Headache, Impairment of vision, blindness

narcosis, Coma

Symptoms may be delayed.

Damage to:

Liver, Kidney, Cardiac, Irreversible damage of the optical nerve.

Further data:

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

### Ingredients

methanol

*Acute oral toxicity*

LDLO human: 143 mg/kg (RTECS)

LD50 rat: 5,628 mg/kg (IUCLID)

*Acute inhalation toxicity*

LC50 rat: 85.26 mg/l; 4 h (IUCLID)

*Acute dermal toxicity*

LD50 rabbit: ca. 17,100 mg/kg (External MSDS)

*Sensitization*

Sensitization test: guinea pig

Result: negative

(IUCLID)

*Germ cell mutagenicity*

*Genotoxicity in vivo*

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(IUCLID)

*Genotoxicity in vitro*

Ames test

Result: negative

(IUCLID)

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## SECTION 12. Ecological information

### Ecotoxicity

No information available.

### Persistence and degradability

No information available.

### Bioaccumulative potential

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No information available.

## Mobility in soil

No information available.

## Other adverse effects

### *Additional ecological information*

Discharge into the environment must be avoided.

## Ingredients

### methanol

#### *Toxicity to fish*

LC50 *Lepomis macrochirus* (Bluegill sunfish): 15,400 mg/l; 96 h (in soft water) (ECOTOX Database)

#### *Toxicity to daphnia and other aquatic invertebrates*

EC50 *E.sulcatum*: > 10,000 mg/l; 72 h (Lit.)

EC50 *Daphnia magna* (Water flea): > 10,000 mg/l; 48 h (IUCLID)

#### *Toxicity to algae*

EC50 *Pseudokirchneriella subcapitata* (green algae): ca. 22,000 mg/l; 96 h (External MSDS)

IC50 *Scenedesmus quadricauda* (Green algae): 8,000 mg/l; 8 d (IUCLID)

#### *Toxicity to bacteria*

EC50 *Pseudomonas fluorescens*: 6,600 mg/l; 16 h (IUCLID)

#### *Toxicity to fish (Chronic toxicity)*

NOEC *Oryzias latipes* (Orange-red killifish): 7,900 mg/l; 200 h  
(External MSDS)

#### *Biodegradability*

99 %; 30 d

OECD Test Guideline 301D

Readily biodegradable.

#### *Biochemical Oxygen Demand (BOD)*

600 - 1,120 mg/g (5 d)

(IUCLID)

#### *Chemical Oxygen Demand (COD)*

1,420 mg/g

(IUCLID)

#### *Theoretical oxygen demand (ThOD)*

1,500 mg/g

(Lit.)

#### *Ratio BOD/ThBOD*

BOD5 76 %

Closed Bottle test

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

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*Stability in water*  
2.2 yr  
reaction with hydroxyl radicals (IUCLID)

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## SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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## SECTION 14. Transport information

### Land transport (DOT)

UN number	UN1230
Proper shipping name	METHANOL
Class	3
Packing group	II
Environmentally hazardous	--

### Air transport (IATA)

UN number	UN 1230
Proper shipping name	METHANOL
Class	3 (6.1)
Packing group	II
Environmentally hazardous	--
Special precautions for user	no

### Sea transport (IMDG)

UN number	UN 1230
Proper shipping name	METHANOL
Class	3 (6.1)
Packing group	II
Environmentally hazardous	--
Special precautions for user	yes
EmS	F-E S-D

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

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## SECTION 15. Regulatory information

### United States of America

OSHA Hazards  
Flammable Liquid

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Target organ effects  
Toxic by inhalation.  
Toxic by ingestion  
Toxic by skin absorption

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

### SARA 311/312 Hazards

Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

### SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

#### *Ingredients*

methanol	67-56-1
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### SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

### DEA List I

Not listed

### DEA List II

Not listed

## US State Regulations

### Massachusetts Right To Know

#### *Ingredients*

methanol

### Pennsylvania Right To Know

#### *Ingredients*

water

methanol

### New Jersey Right To Know

#### *Ingredients*

water

methanol

### California Prop 65 Components

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WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

*Ingredients*  
methanol

## Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

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## SECTION 16. Other information

### Training advice

Provide adequate information, instruction and training for operators.

### Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapor.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

Revision Date07/26/2013

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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