

# SAFETY DATA SHEET

## SECTION 1 --- IDENTIFICATION

Product Name: HPLC Fusel Alcohol Standard Mix  
Common Synonyms: HPLC Fusel Standards  
Part numbers: LQC-HPLC-FA-1, LQC-HPLC-FA-2, LQC-HPLC-FA-3, LQC-HPLC-FA-4, LQC-HPLC-FA-5, LQC-HPLC-FA-V  
Product Use: Analytical standards, Laboratory Reagent  
Restrictions: Not for human consumption. Intended for laboratory use only.

Manufacturer/Supplier:

**Bion Analytical**  
**P.O. Box 85252**  
**Sioux Falls, SD 57118**  
**TEL: (605) 838-6679**

**In Case of EMERGENCY Call INFOTRAC: (800) 535-5053**

## SECTION 2 --- HAZARD IDENTIFICATION

Signal Word: Warning

Hazard Statements: Flammable liquid or vapor.  
Causes skin/eye irritation.



Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces- No smoking.  
Keep container tightly closed.  
Wear protective gloves/clothing/eye and face protection.  
Store in a dry, well-ventilated area, keep cool.  
Wash thoroughly after use.

## SECTION 3 --- COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No./EC No.</u>	<u>Concentration % w/v</u>
Water	7732-18-5	Balance
Methanol	67-56-1/200-659-6	0.1-1%
Ethanol	64-17-5/200-578-6	~18%
1-Propanol	71-23-8/200-746-9	0.1-1%
Isobutanol	78-83-1/201-148-0	0.1-1%
1-Butanol	75-65-0/200-889-7	0.1-1%
3-Methyl-1-butanol	123-51-6/204-633-5	0.1-1%
2-Methyl-1-butanol	137-32-6/205-289-9	0.1-1%
1-Pentanol	71-41-0/200-752-1	0.1-1%
Sulfuric Acid	7664-93-9/231-639-5	Trace

## SECTION 4 --- FIRST AID MEASURES

Emergency and First Aid Procedures

INGESTION: Rinse mouth with water. Seek immediate medical advice.

INHALATION: Supply fresh air. If required provide artificial respiration. Seek immediate medical advice.

SKIN CONTACT: Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

EYE CONTACT: Rinse opened eye for at least 15 minutes under running water. Then consult a doctor.

## SECTION 5 --- FIRE-FIGHTING MEASURES

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Toxic Gases Produced: Carbon monoxide and carbon dioxide.

Protective equipment: Wear self-contained breathing apparatus. Wear fully protective impervious suit.

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## SECTION 6 --- ACCIDENTAL RELEASE MEASURES

### Steps to be Taken in the Event of a Spill or Discharge

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Flush with water or aqueous cleansing agents. Keep away from ignition sources.

## SECTION 7 --- HANDLING AND STORAGE

### Storage Requirements

Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces. No smoking permitted in work area. Store in a dry, well-ventilated area, keep cool. Wash thoroughly after use. Store between 2-8 °C.

## SECTION 8 --- EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PEL (ethanol):	TWA 1000 ppm
NIOSH REL (ethanol):	TWA 1000 ppm
OSHA PEL (methanol):	TWA 200 ppm
OSHA PEL (1-Propanol):	TWA 200 ppm
OSHA PEL (Isobutanol):	TWA 100 ppm
OSHA PEL (1-Butanol):	TWA 100 ppm
OSHA PEL (3-Methyl-1-butanol):	TWA 100 ppm
OSGA PEL (1-Pentanol):	TWA 100 ppm

Eye/Face Protection:	Safety glasses
Protective Clothing:	Coat & Apron
Protective Gloves:	Chemical resistant gloves
Ventilation Requirements:	Well ventilated area or vent hood
Breathing equipment:	Use suitable respirator when high concentrations are present.

## SECTION 9 --- PHYSICAL and CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance & Odor:	Clear, colorless liquid, with alcohol-like odor
Boiling Point:	Not determined
Melting Point:	Not determined
Specific Gravity:	~ 0.96 (Water = 1)
Vapor Pressure (mmHg):	2.1
Vapor Density (air=1):	N/A
Evaporation Rate:	N/A
Flash Point (Closed Cup):	N/A
Auto ignition Temperature:	not determined
Flammable Limits:	Upper - not determined Lower - not determined

## SECTION 10 --- STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	Heat, flames and sparks
Incompatibles:	Oxidizing agents, acids
Decomposition Products:	Carbon monoxide and Carbon dioxide

## SECTION 11 --- TOXICOLOGICAL INFORMATION

### Emergency Overview

Emergency Overview: Causes irritation to skin and eyes. May affect liver, stomach and kidneys. Sulfuric acid is present in an extremely dilute concentration. Target Organs: Eyes, skin, central nervous system, liver, kidney, stomach. May cause irritation. May cause headaches, gastritis, intoxication. Can cause eye irritation. May cause temporary pain and blurred vision. May cause skin irritation, or prolonged skin contact causes drying and cracking of the skin.

### Toxicity of components

Acute toxicity: LD<sub>50</sub> Oral, Rat: (Ethanol) 7,060 mg/kg; LD<sub>50</sub>, Inhalation, Rat: (Ethanol) 20,000 ppm in 10 hours. LD<sub>50</sub> Oral, Rat: (Propanol), 8038 mg/kg, LD<sub>50</sub>, Inhalation, Rat: (Propanol) 20,000 ppm in 1 hour. LD<sub>50</sub>, Oral, Rat: (Pentanol) 3670 mg/kg, LD<sub>50</sub> Oral, Rat: (Methanol) 1187-2769

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mg/kg, LD<sub>50</sub>, Inhalation, Rat: (Pentanol) 128.2 ppm in 4 hours, LD<sub>50</sub>, Oral, Rat: (Butanol) 2743 mg/kg; LD<sub>50</sub> Oral, Rat: (2-Methyl-1-butanol), 4,170 mg/kg; LD<sub>50</sub> Oral, Rat: (3-Methyl-1-butanol), >5,000 mg/kg; LD<sub>50</sub> Oral, Rat: (Isobutanol), 2,460 mg/kg

Ethanol: RTECS# KQ6300000  
Methanol: RTECS# PC1400000  
Propanol: RTECS# UH8225000  
Pentanol: RTECS# SB9800000  
Butanol: RTECS# EO1925000  
Isobutanol: RTECS# NP9625000  
3-Methyl-1-butanol: RTECS# EL5425000  
2-Methyl-1-butanol: RTECS# EL5250000  
Ethanol: RTECS# KQ6300000

Not all chemical, physical and toxicological properties have been thoroughly investigated.

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## SECTION 12 --- ECOLOGICAL INFORMATION

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No ecological information available for this product.

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## SECTION 13 --- DISPOSAL CONSIDERATIONS

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### Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

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## SECTION 14 --- TRANSPORT INFORMATION

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If shipping over exempt quantities.

### Domestic (D.O.T.)

Proper Shipping Name: Flammable liquids N.O.S. (Ethanol)

UN #: UN1993

Packing Group: II

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## SECTION 15 --- REGULATORY INFORMATION

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### California Prop 65

This product contains methanol known to the State of California to cause developmental defects.

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## SECTION 16 --- OTHER INFORMATION

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Revision Date: 5/20/2015

N/A = Not Applicable or Not Available

N/E = Not Established

The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated there under (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes.

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