CovaChem

COVACHEM, LLC.

Safety Data Sheet

HPLC Grade Methanol

SECTION 1: Identification

1.1 Product identifier

Product name	HPLC Grade Methanol
Product number	16303
Brand	CovaChem
Substance name	Methanol
EC no.	200-659-6
CAS no.	67-56-1
Index no.	603-001-00-X

1.2 Other means of identification

Methyl alcohol; Methanol for LC/MS

1.3 Recommended use of the chemical and restrictions on use

The intended use is as a mobile phase additive for high performance liquid chromatography (HPLC). This compound may also be used in organic synthesis and in the manufacture of substances. This compound is usually encountered as an aqueous solution.

1.4 Supplier's details

Name	CovaChem, LLC.
Address	6260 East Riverside Blvd Suite 119 Loves Park, IL 61111 United States
Telephone	815-315-1271
Fax	815-315-1272
email	info@covachem.com

1.5 Emergency phone number(s)

PERS Professional Emergency Response Service
Company Code 11814
1-800-633-8253 (U.S. & Canada)
1-801-629-0667 (International)

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

- Flammable liquids (chapter 2.6), Cat. 2
- Acute toxicity, oral (chapter 3.1), Cat. 3
- Acute toxicity, dermal (chapter 3.1), Cat. 3
- Acute toxicity, inhalation (chapter 3.1), Cat. 3
- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 1

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word	**Danger**

Hazard statement(s)

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

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER and/or doctor.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P311	IF exposed or concerned: Call a POISON CENTER and/or doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P403+P233	Store in a well ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, state, federal and international regulations.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	Methanol
EC no.	200-659-6
CAS no.	67-56-1
Index no.	603-001-00-X
Formula	CH4O
Molecular weight	32.04
Other names / synonyms	WOOD ALCOHOL; PYROXYLIC SPIRIT; MONOHYDROXYMETHANE; METHYL HYDROXIDE; METHYLOL; METHANOL; COLUMBIAN SPIRIT; COLONIAL SPIRIT; CARBINOL; METHYLALCOHOL; METHYL ALCOHOL
Impurities and stabilizing additives	No additional ingredients present known to the supplier, which are classified as hazardous to health or environment, which would require reporting herein.

Hazardous components

1. Methanol

Concentration	Not specified
EC no.	200-659-6
CAS no.	67-56-1
Index no.	603-001-00-X

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice

SKIN CONTACT:
IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water.
If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.

*INHALATION:
IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital.
Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Respirator Recommendation.

*EYE CONTACT:
First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center.
Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician.
IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

*INGESTION:
DO NOT INDUCE VOMITING. Volatile chemicals have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems.
If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital.
If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital.

*SYMPTOMS:
Symptoms of exposure to this compound may include headache, fatigue, nausea, dizziness, stupor, cramps, dermatitis, visual impairment or complete blindness (may be permanent); acidosis, convulsions, mydriasis, circulatory collapse, respiratory failure, death, irritation of mucous membranes, damage to the central nervous system (especially the optic nerve), injury to the kidneys, liver, heart and other organs; peripheral neuritis, gastrointestinal disturbances, photophobia and conjuctivitis, followed by definite eye lesions; narcosis, unconsciousness, shallow breathing, cyanosis, coma, fall in blood pressure, hyperemia of the optic disk with blurring of the margin; burning

	sensation, coughing, wheezing, laryngitis, vomiting, delirium, pain in the eyes, giddiness, vertigo, severe abdominal pain, back pain, dyspnea, motor restlessness, cold clammy extremities and diarrhea.
If inhaled	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Respirator Recommendation.
In case of skin contact	IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.
In case of eye contact	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.
If swallowed	DO NOT INDUCE VOMITING. Volatile chemicals have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital.

4.2 Most important symptoms/effects, acute and delayed

Symptoms of exposure to this compound may include headache, fatigue, nausea, dizziness, stupor, cramps, dermatitis, visual impairment or complete blindness (may be permanent); acidosis, convulsions, mydriasis, circulatory collapse, respiratory failure, death, irritation of mucous membranes, damage to the central nervous system (especially the optic nerve), injury to the kidneys, liver, heart and other organs; peripheral neuritis, gastrointestinal disturbances, photophobia and conjuctivitis, followed by definite eye lesions; narcosis, unconsciousness, shallow breathing, cyanosis, coma, fall in blood pressure, hyperemia of the optic disk with blurring of the margin; burning sensation, coughing, wheezing, laryngitis, vomiting, delirium, pain in the eyes, giddiness, vertigo, severe abdominal pain, back pain, dyspnea, motor restlessness, cold clammy extremities and diarrhea.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

When the temperature is above the flash point, flammable in the presence of an ignition source. Keep away from all heat sources, sparks, and open flames.

5.3 Special protective actions for fire-fighters

Wear a self-contained breathing apparatus when appropriate.

Further information
Carbon oxides may form upon combustion.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing vapors. Use in well ventilated area. Use air purifying respirator protection.

ACUTE/CHRONIC HAZARDS:
This compound may cause severe skin and eye irritation. It can be absorbed through the skin. It may cause narcosis.

*MINIMUM PROTECTIVE CLOTHING: Not available

*RECOMMENDED GLOVE MATERIALS:
Recommended Glove Type For Use With Neat (Undiluted) Chemical:
Recommendations based on permeation test results are made for handling the neat (undiluted) chemical. If this chemical makes direct contact with your glove, or if a tear, puncture or hole develops, replace them at once.

Suggested Glove Type(s) (RAD): No information available

*RECOMMENDED RESPIRATOR:
When working with this chemical, wear a NIOSH-approved full face positive pressure supplied-air respirator or a self-contained breathing apparatus (SCBA).

*STORAGE PRECAUTIONS:
You should store this chemical in an explosion-proof refrigerator and keep it away from oxidizing materials. STORE AWAY FROM SOURCES OF IGNITION.

*SPILLS AND LEAKAGE:
If you spill this chemical, FIRST REMOVE ALL SOURCES OF IGNITION. Then, use absorbent paper to pick up all liquid spill material. Seal the absorbent paper, as well as any of your clothing which may be contaminated, in a vapor-tight plastic bag for eventual disposal. Wash any surfaces you may have contaminated with a soap and water solution. Do not reenter the contaminated area until the Safety Officer (or other responsible person) has verified that the area has been properly cleaned.

*DISPOSAL AND WASTE TREATMENT:
Not available

*OTHER: Not available

6.2 Environmental precautions
Prevent environmental release. Do not pour down drain or allow to enter waterways or sewers. Prevent further spillage of material when possible.

6.3 Methods and materials for containment and cleaning up
If you spill this chemical, FIRST REMOVE ALL SOURCES OF IGNITION. Then, use absorbent paper to pick up all liquid spill material. Seal the absorbent paper, as well as any of your clothing which may be contaminated, in a vapor- tight plastic bag for eventual disposal. Wash any surfaces you may have contaminated with a soap and

water solution. Do not reenter the contaminated area until the Safety Officer (or other responsible person) has verified that the area has been properly cleaned.

If you should spill this chemical, use absorbent paper to pick up all liquid spill material. Seal the absorbent paper, as well as any of your clothing which may be contaminated, in a vapor-tight plastic bag for eventual disposal. Wash any surfaces you may have contaminated with a soap and water solution. Do not reenter the contaminated area until the Safety Officer (or other responsible person) has verified that the area has been properly cleaned.

Reference to other sections
For disposal information refer to section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid breathing vapors. Wear respiratory protection.
Avoid contact with skin and eyes.
Container may explode under fire conditions. Keep away from ignition sources including sparks, fire, and static electricity.

7.2 Conditions for safe storage, including any incompatibilities
Store container upright, in a well ventilated, dry location.

Recommended Storage Temperature: Room Temp (+15 - 25 ºC)

Specific end use(s)
For laboratory use only. Intended for use as a research laboratory chemical or in the manufacturing of substances.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Methyl alcohol (CAS: 67-56-1)
REL (Inhalation): 200 ppm, (ST) 250 ppm (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

2. Methyl alcohol (CAS: 67-56-1)
PEL (Inhalation): 200 ppm, (ST) 250 ppm, (C) 1000 ppm (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

3. Methyl alcohol (CAS: 67-56-1)
PEL (Inhalation): 260 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

4. Methyl alcohol (CAS: 67-56-1)
PEL (Inhalation): 200 ppm (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

5. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)
PEL-TWA: 200 ppm, 260 mg/m3 (OSHA)
USA. Occupational Exposure Limits
(OSHA) - Table Z-1 Limits for Air
Contaminants

6. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)
Headache, Nausea, Dizziness, Eye damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Danger of cutaneous absorption

7. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)
PEL-TWA: 200 ppm, 325 mg/m3 (NIOSH)

8. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)
STEL: 250 ppm (ACGIH)

9. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)
Headache, Nausea, Dizziness, Eye damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Danger of cutaneous absorption

10. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)
PEL-TWA: 200 ppm (ACGIH)

11. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)
Potential for dermal absorption

8.2 Appropriate engineering controls
Use product in a well ventilated location, such as in a fume hood.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms

Eye/face protection
Use a face shield (minimum 8 inches) and government tested and approved safety goggles, such as NIOSH (US) or EN 166 (EU).

Skin protection
*MINIMUM PROTECTIVE CLOTHING: Not available *RECOMMENDED GLOVE MATERIALS: Recommended Glove Type For Use With Neat (Undiluted) Chemical: Recommendations based on permeation test results are made for handling the neat (undiluted) chemical. If this chemical makes direct contact with your glove, or if a tear, puncture or hole develops, replace them at once. Suggested Glove Type(s) (RAD): No information available

Body protection
Complete chemical protective suit is recommended. The personal protective equipment should be selected based upon the concentration and amount of chemical at work station.

Respiratory protection
RECOMMENDED RESPIRATOR: When working with this chemical, wear a NIOSH-approved full face positive pressure supplied-air respirator or a self-contained breathing apparatus (SCBA). [651] *STORAGE PRECAUTIONS: You should store this chemical in an explosion-proof refrigerator and keep it away from oxidizing materials. STORE AWAY FROM SOURCES OF IGNITION. *SPILLS AND LEAKAGE: If you spill this chemical, FIRST REMOVE ALL SOURCES OF IGNITION. Then, use absorbent paper to pick up all liquid spill material. Seal the absorbent paper, as well as any of your clothing which may be contaminated, in a vapor- tight plastic bag for eventual disposal. Wash any surfaces you may have contaminated with a soap and water solution. Do not reenter the contaminated area until the Safety Officer (or other responsible person) has verified that the area has been properly cleaned. *DISPOSAL AND WASTE TREATMENT: Not available

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Liquid
Odor	Alcohol like odor
Odor threshold	Data unavailable
pH	Data unavailable
Melting point/freezing point	-98
Initial boiling point and boiling range	64.6

Flash point	10
Evaporation rate	Data unavailable
Flammability (solid, gas)	Data unavailable
Upper/lower flammability limits	Upper explosion Limit: 36 % V
Upper/lower explosive limits	Lower explosion Limit: 6 % V
Vapor pressure	43.2 hPa (32.4 mm Hg) at 20 C
Vapor density	Data unavailable
Relative density	0.7913 @ 20/4 C
Solubility(ies)	completely soluble
Partition coefficient: n-octanol/water	log P octanol: -0.77
Auto-ignition temperature	455 C
Decomposition temperature	Data unavailable
Viscosity	Data unavailable
Explosive properties	Data unavailable
Oxidizing properties	Data unavailable

SECTION 10: Stability and reactivity

10.1 Reactivity
Data unavailable

10.2 Chemical stability
The chemical is stable under normal storage conditions.

10.3 Possibility of hazardous reactions
Data unavailable

10.4 Conditions to avoid
Avoid excessive heat exposure and proximity to sparks or open flames.

10.5 Incompatible materials
Oxidizing agents, Acid anhydrides, Aluminum, Halogenated compounds

10.6 Hazardous decomposition products
Carbon oxides may form under fire conditions.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
LD50 Oral: 1,187 mg/kg (Rat)
LC50 Inhalation: 128.2 mg/L for 4 h (Rat)
LC50 Inhalation: 87.6 mg/L for 6 h (Rat)
LC50 Dermal: 17,100 mg/kg (Rabbit)

Skin corrosion/irritation
Skin: No Skin irritation detected (rabbit)

Serious eye damage/irritation
Eye: Eye irritation detected (rabbit)

Respiratory or skin sensitization
Guinea Pig: Does not appear to cause skin sensitization

Germ cell mutagenicity
Data unavailable

Carcinogenicity
Data unavailable

Reproductive toxicity
Data unavailable

STOT-single exposure
Data unavailable

STOT-repeated exposure
Data unavailable

Aspiration hazard
Data unavailable

SECTION 12: Ecological information

Toxicity
Toxicity to Fish: LC50, 15.400 mg/L at 96 h (Lepomis macrochirus, ie. Bluegill)
Toxicity to Daphnia: EC50, 10,000 mg/L at 48 h (Daphnia magna, ie. Water flea)
Toxicity to Algae: EC50, 22,000 mg/L at 96 h

Persistence and degradability
Rapidly biodegradable

Bioaccumulative potential
Bioaccumulation Factor = 1.0
5 mg/L at 20 C for Cyprinus Carpio (Carp), 72 days

Mobility in soil
Does not adsorb onto soil

Results of PBT and vPvB assessment
Data unavailable

Other adverse effects
This chemical may cause environmental hazards. Do not allow material to enter the drain, sewer, or water ways.

SECTION 13: Disposal considerations

Disposal of the product
Generation of waste should be kept to a minimum when possible. Any waste generated should be recycled when possible. Please dispose any unused or used materials in accordance with applicable national, regional and local laws and regulations.

*DISPOSAL AND WASTE TREATMENT: Not available

Disposal of contaminated packaging
Dispose in the same way as unused product.

Waste treatment
This product should be disposed of by a licensed waste management professional. Disposal through incineration with afterburner scrubbing is recommended.

Sewage disposal
Product should not enter the sewer.

SECTION 14: Transport information

DOT (US)
UN Number: 1230
Class: 3
Packing Group: II
Proper Shipping Name: Methanol
Reportable quantity (RQ): 5,000 lbs
Poison inhalation hazard: No

IMDG
UN Number: 1230
Class: 3 (6.1)
Packing Group: II
EMS Number: F-E, S-D
Proper Shipping Name: METHANOL

IATA
UN Number: 1230
Class: 3 (6.1)
Packing Group: II
Proper Shipping Name: Methanol

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components
No component in this product is subject to the reporting requirements of SARA, Title III, Section 302

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 313 Components
This component (Methanol, CAS No. 67-56-1) is subject to the reporting requirements of SARA, Title III, Section 313

Massachusetts Right To Know Components
Chemical name: Methanol
CAS number: 67-56-1

New Jersey Right To Know Components
Common name: METHANOL
CAS number: 67-56-1

Pennsylvania Right To Know Components
Chemical name: Methanol
CAS number: 67-56-1

California Prop. 65 Components
This material contains a chemicals known to the state of California to cause reproductive harm, Methanol (CAS No. 67-56-1).

HMIS Rating

Methanol	
HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

PERSONAL PROTECTION

NFPA Rating

SECTION 16: Other information

The information represented in this Safety Data Sheet is believed to be correct and is based on the current state of our knowledge. This document or any other document does not represent or suggest any type of warranty or guarantee of the product properties or characteristics of this material. CovaChem, LLC and its affiliates shall not be held liable for any damages that result from contact with the above product or handling this product or any others.