SAFETY DATA SHEET

1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name: **METHANOL**

Product Code: M-3700

Product use: For laboratory or industrial use only

Supplier: Cochimbec Inc.
8561 chemin Dalton
Town of Mount-Royal, Quebec
H4T 1V5 CANADA

Telephone: 514-990-1935
Emergency Telephone: (CANUTEC): 613-996-6666

2 – HAZARDS IDENTIFICATION

GHS Classification: Flammable liquids (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity – single exposure (Category 3) Central nervous system
Specific target organ toxicity – repeated exposure (Category 2) Kidney, Liver

Signal word:		**Danger**
Hazard statement:	H225	Highly flammable liquid and vapour.
	H301 + H311	Toxic if swallowed or by skin contact.
	H319	Causes serious eye irritation.
	H331	Toxic if inhaled.
	H372	Causes damage to organs (liver, kidney) through prolonged or repeated exposure.
	H373	May cause damage to organs (liver, kidney, spleen, blood) through prolonged or repeated exposure.
Precautionary statement:	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P233	Keep container tightly closed.
	P240	Ground and bond container and receiving equipment.
	P241	Use explosion-proof electrical / ventilation / lighting equipment.

	P242	Use non-sparking tools.
	P243	Take action to prevent static discharges.
	P260	Do not breath dust / fume / gas / mist / vapours / spray.
	P264	Wash skin 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 + P330	IF SWALLOWED: Immediately call a POISON CENTER / Doctor. Rinse mouth.
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P311	Call a POISON CENTER / Doctor.
	P363	Wash contaminated clothing before reuse.
	P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol resistant foam to extinguish.
	P403	Store in a well-ventilated place.
	P404	Store in a closed container.
	P405	Store locked up.
	P501	Dispose of contents / container to …
Other hazards:		Poison, May be fatal if inhaled or cause blindness if ingested.

3 – COMPOSION / INFORMATION ON INGREDIENTS

Synonyms: **Methyl Alcohol, Methyl Hydrate, Methyl Hydroxide**

INGREDIENT	Concentration	CAS No.	EC No.	Index No.
METHANOL	99-100 %	67-56-1	200-659-6	603-001-00-X

4 – FIRST AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If victim is not breathing, give artificial respiration and call for medical assistance.
Skin contact:	Wash with plenty of soap and water. Consult a physician if irritation persists.
Eye contact:	Rinse cautiously with water for 15 minutes. If eye irritation persists continue rinsing and get medical attention.
Ingestion:	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. Consult a physician.
Most important symptoms / effects	Symptoms of overexposure or inhalation of high vapour concentration may cause loss of sight.

5 – FIRE-FIGHTING MEASURES

Extinguishing media:	Water spray, alcohol resistant foam, dry chemical, carbon dioxide. Use water spray to cool unopened containers.
Combustion Exposure Hazards:	Hazardous decomposition products formed under fire condiiotions: Carbon Oxides. No data.
Fire-Fighting equipment and precaution:	Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.
Sensitivity to mechanical impact:	Not sensitive.
Sensitivity to static discharge:	N / D

NFPA **Risk** **0=Low** **4=High**	**HEALTH**	**FLAMMABILITY**	**REACTIVITY**	**HAZARDS**
	2	**3**	**0**	

6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Avoid inhaling vapour or mist. Use in a properly ventilated area. Keep away for sources of ignition. Evacuate people to safe areas. Avoid accumulation of vapours that can form explosive concentrations.
Environmental Precautions:	Prevent further leakage or spillage using personal protection. Avoid product entering into drains.
Method & Material for containment and cleaning up:	Contain spillage. Soak up with inert absorbent material. Product may be wet-brushed and placed in a container for disposal according to local, state and federal regulations.

7 – HANDLING AND STORAGE

Precautions for safe handling:	Wear personal protective equipment. Do not get on skin, eyes and clothing. Do not breathe fume / gas / mist / vapours / spray. Keep away from open flame, hot surfaces and sources of ignition. Use explosion proof equipment. Take precautionary measures against static discharges. Do not smoke. Ground any metal equipment.
Conditions for Safe Storage:	Store in a cool, dry place away from incompatibles, heat and possible source of ignition. Keep container tightly closed in a well-ventilated area.

8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

COMPONENT	CAS-No	VALUE	CONTROL PARAMETERS	BASIS
METHANOL	67-56-1	TWA	200 ppm 262 mg/m^3	Canada, Alberta OEL
		STEL	250 ppm 328 mg/m^3	Canada, Alberta OEL
		VEMP	200 ppm 262 mg/m^3	Québec OEL
		STEL	250 ppm	Canada, B.C. OEL
		TWA	200 ppm	Canada, B.C. OEL

		VECD	250 ppm 328 mg/m^3	Quebec OEL. Annex 1 Part 1 Valeurs d'exposition admissibles des contaminants de l'air

Eye Protection:	Safety glasses or chemical safety goggles and/or a full face shield if splashing is possible.
Hand Protection:	Use chemical resistant gloves.
Body Protection:	Use impervious apron or body suit. The protective clothing must be flame retardant and antistatic.
Respiratory Protection:	Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face air respirator. Use NIOSH (US) or CEN (EU) approved respirators.
Engineering Controls:	Use antispark equipment for exhaust or fume hood. Ensure adequate ventilation.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	**Auto ignition temperature:**	464 °C
Color:	Colourless	**Upper Explosion Limit:**	36.5 % by Volume
Odour:	Odorless	**Lower Explosion Limit:**	6 % by Volume
Odour threshold::	4.2 – 5960 ppm	**Vapour pressure:**	12.8 mm Hg @ 20 °C
pH:	N / D	**Vapour density: (air = 1)**	1.105 @ 15 °C
Melting point:	-97.8°C	**Relative density**	0.8
Boiling point:	64.7°C @ 760 mm Hg	**Water solubility:**	Completely soluble
Boiling range:	64-66°C @ 760 mm Hg	**Decomposition temperature:**	N / D
Density	0.791 g/mL @ 25°C	**Refractive Index:**	N / D
Flash point:	11 °C Closed cup	**Viscosity:**	0.55 mPa.s @ 20 °C
Evaporation rate: (n-Butyl Acetate = 1)	4.1	**Partition coeficient: n-octanol / water**	-0.77

10 – STABILITY AND REACTIVITY

Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Vapours may form explosive mixture with air if there is a source of ignition or if product comes in contact with incompatible materials.
Conditions to avoid:	Heat, flames and sparks. Extreme temperatures.
Incompatible materials:	Acids, Oxidizing agents, Alkaline metals, Acid chlorides, Acid Anhydrides and reducing agents.
Hazardous decomposition products:	Hazardous decomposition products formed under fire conditions: Carbon Oxides.

11 – TOXICOLOGICAL INFORMATION

COMPONENTS	LD_{50} ORAL	LD_{50} DERMAL	LC_{50} INHALATION
METHANOL	6200 mg/kg (rat)	17,100 mg/kg (rabbit)	22,500 mg/L (rat) 8 hr
Skin Corrosion / irritation	May cause skin irritation		
Serious eye damage / eye irritation	May cause eye irritation.		
Respiratory or skin sensitisation	No data available.		
Germ cell Mutagenicity	No data available.		
Carcinogenicity	This product **does not** contain any compounds listed by NTP, IARC, ACGIH or EPA classified as a carcinogen.		
Reproductive toxicity	Methanol is reported to cause birth defects in rats exposed to 20,000 ppm.		
Teratogenicity	No data available		
Aspiration hazard	May cause blindness.		
Symptoms of Exposure	May cause nausea, headache, vomiting, narcosis, and drowsiness. May also cause blindness. Overexposure may cause light or irreversible effects to the liver, kidney, spleen and blood.		
Synergistic effects	No data available		
Addition information	RTECS: No data available.		

12 – ECOLOGICAL INFORMATION

COMPONENTS	Toxicity to fish	Toxicity Microtox	Toxicity to Algea
METHANOL	LC_{50} – Pimephales promelas (Fathead minnow) – 10,000 mg/l – 96 h.	EC_{50} – 39,000 mg/l – 25 min EC_{50} – 40,000 mg/l – 15 min EC_{50} – 43,000 mg/l – 5 min	
Persistence and degradability	No data available		
Bioaccumulative potential	No data available		
Mobility in soil	-0.77		
PBT and vPvB assessment	No data available		
Other adverse effects	No data available		

13 – DISPOSAL CONSIDERATIONS

Product	Burn in a chemical incinerator equipped with an afterburner and scrubber. Exert extra care in igniting as this product is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Federal and local laws governing disposal of material can differ. Ensure proper disposal compliance with authorities before disposal.
Contaminated clothing	Let dry, then wash before reusing clothes.

Contaminated packaging	Dispose as unused product above. Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14 – TRANSPORT INFORMATION

	TDG	IMDG	IATA
Shipping Name:	METHANOL	METHANOL	METHANOL
UN-number:	UN1230	UN1230	UN1230
Class & Subclass:	3 (6.1)	3 (6.1)	3 (6.1)
Packing Group:	II	II	II
Limited Quantity:	1 L	1 L	1 L
Inhalation Toxicity:	No	No	No
Marine Pollutant	No	No	

15 – REGULATORY INFORMATION

US Regulations	SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200 Flammable liquid, Target Organ Effect, Irritant.
Canada Classification	Canada WHMIS: Class B-2: Flammable liquids with flash point less than 37.8°C. Class D1B Materials causing immediate and serious toxic effects.
International	Europe EINECS Numbers: Not available

16 – OTHER INFORMATION

Information on the preparation of SDS:	Prepared by Cochimbec Inc. Safety Personnel August 15, 2018 Revision 3 I.C. 1,3,7
Abbreviations:	ACGIH = American Conference of Governmental Industrial Hygienists ASTM = American Society for Testing and Materials BCF = Bioconcentration Factor CAS = Chemical Abstract Services CCOHS = Canadian Center for Occupational Health & Safety CEN (EU) = Committée Européen de Normalisation CERCLA = Comprehensive Environmental Response Compensation & Liability Act CFR = Code of Federal Regulations CMR = Carcinogenic-mutagenic-toxic for reproduction CPR = Controlled Products Regulations DIN = German Institute for Standardisation

DOT = Department of Transport
EC_{50} = Half maximal effect concentration
EINECS = European Inventory of Existing Commercial Chemical Substances
GHS = Global Harmonization System
GLP = Good Laboratory practice
GMO = Genetic Modified Organism
IARC = International Agency for research on Cancer
IATA = International Air Transport Association
ISO = International Organisation for Standardisation
IDLH = Immediate danger to life and health
IMDG = International Maritime Dangerous Goods
LC_{50} = Lethal concentration causing 50% death
LD_{50} = Lethal dose causing 50% death
LOAEL = Lowest Observed Adverse Effect Level
LOEL = Lowest Observed Effect Level
N/A = Not Applicable
N/D = No Data
N/E = Not Established
NFPA = National Fire Protection Association
NIOSH = National Institute for Occupational Safety & Health
NTP = National Toxicology Program
OECD = Organisation for Economic Co-operation & Development
OEL = Occupational exposure limit
OHSC = Occupational health & safety council (committee)
OSHA = Occupational Safety & Health Administration
PBT = Persistent, Bioaccumulation, Toxic
PEL = Permissible Exposure Limit
RCRA = Resource Conservation & Recovery Act
RTECS = Registry of Toxic Effects of Chemical Substances
SARA = Species at Risk Act
STEL = Short term exposure limit
STEV = Short term exposure value
STOT = Specific Target Organ Toxicity
TDG = Transport of Dangerous Goods
TLV = Threshold limit value
TMD = Transport de Matières Dangereuses
TSCA = Toxic Substance Control Act
TWA = Time weighted Average
TWAEV = Time weighted average exposure value
UN = United Nations
vPvB = very Persistent and very Bioaccumulative
VOC = Volatile Organic Compounds
WEEL = Workplace Environment Exposure Limit
WHO = World Health Organisation
WHMIS = Workplace Hazardous Material Information System
W/V = Weight / Volume
W/W = Weight / Weight

Disclaimer:	Cochimbec Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages. The information herein is provided in good faith and believed to be correct as of the date shown above but does not purport to be all inclusive and shall be used only as a guide. We also urge each user of this product, to study this SDS carefully and becomne aware of and understand the hazards associated with this product. Since conditions for use of the product are not under the control of the manufacturer, it is the user's responsibility to determine the conditions necessary for the safe use of this product. This information relates only to the product designated herein, and does not relate to its use in combination with other material or in any other process. Do not use ingredient information and / or ingredient percentages in this SDS as a product specification.

End of Safety Data Sheet