ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

SAFETY DATA SHEET

Print Date: March 19, 2025

Section 1: Product & Company Information

Product Identifier: **Methanol (All Grades)**

Other Means of Identification

Product Number: 151012
102003

Recommended Use and Restrictions on Use

Recommended Use: Laboratory chemicals, Industrial & for professional use only.
Restrictions on Use: None known.

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.
Address: 4320 Greenway Drive
Knoxville, TN 37918 USA

Information Telephone Number: 1-865-524-4239
Fax Number: 1-865-524-3375
Website: www.corecheminc.com
Contact Person: Regulatory Manager
E-mail: regulatory@corecheminc.com
Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 *(monitored 24 hours/day)*

Section 2: Hazards Identification

GHS Hazard Classification(s)

In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)

Flammable, Liquids - 2

Health Hazard(s)

Acute Toxicity, Oral - 3
Acute Toxicity, Dermal - 3
Acute Toxicity, Inhalation - 3
Specific Target Organ Toxicity (STOT), Single exposure - 1

Environmental Hazard(s)

Not classified.

Label Elements

Signal Word

DANGER

Hazard Symbol(s)

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 Statements

General

Not applicable.

Prevention

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233: Keep container tightly closed.
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.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P264: Wash face, hands and any exposed 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.

Response

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P307 + P311: IF exposed: Call a POISON CENTER or doctor/physician.
P311: Call a POISON CENTER or doctor/physician.
P321: Specific treatment (see supplemental first aid instructions on this label).
P330: Rinse mouth.
P361: Remove/Take off immediately all contaminated clothing.
P362: Take off contaminated clothing and wash before reuse.
P363: Wash contaminated clothing before reuse.
P370 + P378: In case of fire: Use suitable extinguishing media for extinction.

Storage

P403 + P235: Store in a well-ventilated place. Keep cool.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity [2]	Common Name/Synonym(s)	CAS # [3]	Weight %	Impurity or Stabilizing Additive
Methanol	Methyl Alcohol, Wood Alcohol	67-56-1	≤ 100 %	No

1. Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
2. Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
3. "— "Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation

If breathed in, move a person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact

Wash off with soap and plenty of water. Take the victim immediately to hospital. Consult a physician.

Eye Contact

Flush eyes with water as a precaution.

Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed

Symptoms

Dizziness, Drowsiness, metabolic acidosis, Blurred vision, Seizures., Coma, Blindness, death.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Treat symptomatically.

Section 5: Fire-Fighting Measures

General Fire Hazards

Containers can build pressure if exposed to heat and/or fire. Use water spray to keep fire exposed containers cool. Containers may explode in the heat of a fire. Vapors will form an explosive mixture with the air. Vapors will travel to a source of ignition and flash back.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable Extinguishing Media

Do NOT use water jet.

Specific Hazards Arising from the Chemical

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

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

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

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and Materials for Containment and Clean-Up

Contain spillage, and then collect with non-combustible absorbent material, (e.g., sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Section 7: Handling and Storage

Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

Conditions for Safe Storage, including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a cool, well-ventilated place.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Methanol	TWA	200 ppm	US OSHA Table Z-1
Methanol	ST	250 ppm 325 mg/m3	USA. NIOSH Recommended Exposure Limits
Methanol	TWA	200 ppm 260 mg/m3	USA. NIOSH Recommended Exposure Limits
Methanol	TWA	200 ppm 260 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1
Methanol	PEL	200 ppm 260 mg/m3	California permissible exposure limits for chemical contaminants
Methanol	C	1,000 ppm	California permissible exposure limits for chemical contaminants
Methanol	STEL	250 ppm 325 mg/m3	California permissible exposure limits for chemical contaminants
Methanol	STEL	250 ppm	US. ACGIH Threshold Limit Values

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Provide explosion- proof ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace limits indicated above. The level of protection and types of controls will vary depending upon potential exposure conditions. Eyewash stations and showers in close proximity of use are advised.

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

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/Face Protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection

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.

Other

Complete suit protecting against chemicals, flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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 supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygiene Measures

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance:

Physical State:	Liquid
Color:	Colorless
Odor:	Alcohol-like
Odor Threshold:	10 ppm
pH:	Not applicable.
Melting Point/Freezing Point:	-98°C (144°F)
Initial Boiling Point and Boiling Range:	64.7°C (148.5°F)
Flash Point:	9.7°C (49.5°F)
Evaporation Rate (butyl acetate=1)**:**	1.9 - n-butyl acetate

Evaporation Rate (ether =1**):**	6.3 -Diethyl ether
Flammability (solid, gas):	No data available.
Upper/Lower Limit on Flammability or Explosive Limits	
Flammability Limit – Upper:	No data available.
Flammability Limit – Lower:	No data available.
Explosive Limit – Upper:	44 %(V)
Explosive Limit – Lower:	5.5 %(V)
Vapor Pressure:	130.3 hPa at 20°C 169.27 hPa at 25°C 546.6 hPa at 50°C
Vapor Density (air =1)**:**	1.11
Relative Density (water=1)**:**	0.79 - 0.820 °C
Specific Gravity	0.79 - 0.820 °C
Solubility(ies):	
Solubility in water:	completely miscible
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	log Pow: -0.77
Auto-Ignition Temperature:	455.0 °C (851.0 °F) at 1,013 hPa
Decomposition Temperature:	Distillable in an undecomposed state at normal pressure
Viscosity:	0.54 - 0.59 mm2/s at 20 °C (68 °F)
Viscosity (Dynamic):	No data available.
Minimum ignition temperature	0.14 mJ
Saturation concentration	No data available.
VOC content	No data available
Other properties	No data available.
Other Information:	
Molecular Weight:	C-H4-O
Formula:	32.04 g/mol

Section 10: Stability and Reactivity

Reactivity

Vapors may form explosive mixtures with air.

Chemical Stability

Stable under recommended storage conditions.

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, powdered magnesium, hydrogen peroxide, Nitric acid, sulfuric acid, permanganic acid, sodium hypochlorite.
Exothermic reaction with: Acid halides Acid anhydrides, Reducing agents, acids, Bromine, Chlorine, Chloroform, magnesium, tetrachloromethane.
Risk of ignition or formation of: Inflammable gases or vapors with: Fluorine, Oxides of phosphorus, Raney-nickel.
Generates dangerous gases or fumes in contact with: Alkaline earth metals, Alkali metals.

Conditions to Avoid

Heat, flames and sparks.

Incompatible Materials

Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids.

Hazardous Decomposition Products

No data available.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: No data available.
Inhalation: No data available.
Skin Contact: No data available.
Eye Contact: No data available.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

LDLO Oral - Human – 100.1 mg/kg

LD50 Oral - Rat - 1.187 - 2.769 mg/kg

Dermal
LD50 Dermal – 300.1 mg/kg

Inhalation
LC50 Inhalation - Rat - 4 h – 128.2 mg/l
LC50 Inhalation - Rat - 6 h – 87.6 mg/l
LC50 Inhalation - 4 h – 3.1 mg/l vapor

Repeated Dose Toxicity
No data available.

Skin Corrosion/Irritation
Skin - Rabbit
Result: No skin irritation
Remarks: Drying-out effect resulting in rough and chapped skin.

Serious Eye Damage/Eye Irritation
Eyes - Rabbit
Result: No eye irritation

Respiratory/Skin Sensitization
Sensitisation Test (GPMT) - Guinea pig
Result: Negative
Does not cause skin sensitization.

Carcinogenicity
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
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.
US. National Toxicology Program (NTP) Report on Carcinogens
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.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
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.

Germ Cell Mutagenicity
In Vitro
Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
In Vivo
Not classified (Based on available data, the classification criteria are not met)

Reproductive Toxicity
Damage to fetus is not classifiable.

Specific Target Organ Toxicity – Single Exposure
Causes damage to organs. Eyes, Central nervous system

Specific Target Organ Toxicity – Repeated Exposure
Not classified (Based on available data, the classification criteria are not met)

Aspiration Hazard
No aspiration toxicity classification.

Other Effects
None known.

Ecotoxicity
Acute Hazards to the Aquatic Environment
Fish
LC50 - Lepomis macrochirus (Bluegill) - 15,400.0 mg/l - 96 h
Methanol: EC50 (Selenastrum carpricornutum (Pseudokichnerela subcapitata), 72 h): 22,000 mg/l

Aquatic Invertebrates
Methanol: EC50 (Daphnia, 96 h): > 18,260 mg/l
Toxicity to Aquatic Plants
ErC50 - Pseudokirchneriella subcapitata (green algae) - ca. 22,000.0 mg/l - 96 h

Chronic Hazards to the Aquatic Environment
Fish
NOEC - Oryzias latipes (Orange-red killifish) - 7,900 mg/l - 200 h
Aquatic Invertebrates
No data available.
Toxicity to Aquatic Plants
No data available.

Persistence and Degradability
Biodegradation
Rapidly degradable.
BOD/COD Ratio
BOD- 600 – 1,120 mg/g
COD- 1,420 mg/g

Bioaccumulative Potential
Bioconcentration Factor (BCF)
Bioconcentration factor (BCF): 1.0
Partition Coefficient n-octanol / water (log Kow)
No data available.

Mobility in Soil
Will not adsorb on soil.

Other Adverse Effects
Avoid release into the environment.

Section 13: Disposal Considerations

Disposal Instructions
Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated Packaging
Dispose of as unused product.

US Department of Transportation (DOT)

UN Number:	UN1230
UN Proper Shipping Name:	Methanol
Technical Name:	-
Hazard Class:	3
Subsidiary Hazard Risk:	-
Packing Group:	II
DOT Label/Placard Exemptions:	Not determined
Special Provisions:	IB2, T7, TP2
Packaging Exceptions:	49CFR 173.150
Packaging Non-Bulk:	49CFR 173.202
Packaging Bulk:	49CFR 173.242
Reportable Quantity (RQ):	5,000lb (2,270kg)
Marine Pollutant:	No
Poison Inhalation Hazard:	No
Special precautions 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.
Emergency Response Guidebook (ERG) #:	131

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

The following chemical(s) in this material are subject to reporting levels established by CERCLA:

Methanol (CAS# 67-56-1)

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard:	Yes
Sudden Release of Pressure:	No
Reactive:	No
Acute (Immediate) Health Hazard:	Yes
Chronic (Delayed) Health Hazard:	Yes

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

The following chemical(s) in this material are subject to reporting levels established by SARA Title III, Section 313:

Methanol (CAS# 67-56-1)

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

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

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purpose. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 2
Chronic Health Hazard: *
Flammability: 3
Physical Hazard: 0
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 2
Fire Hazard: 3
Reactivity Hazard: 0
Special: N/A
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL – Immediately Dangerous to Life and Health
Kg – Kilogram
ACGIH - American Conference of Industrial Hygienists
AIHA – American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS – Chemical Abstracts Service
DOT – US Department of Transportation

l – Liter
lb – Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
mg - milligram
ml – milliliter
N/A – Not Applicable
N/D – Not Determined
PEL – Permissible Exposure Limit
REL – Recommended Exposure Limit
STEL – Short-term Exposure Limit
TWA - Time weighted average
EPA – US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicology Program
OSHA – US Occupational Health and Safety Administration
SARA – US EPA Superfund Amendments and Reauthorization Act
TSCA – US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

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