




G.K. Chemical Specialties Co. Inc.  
90 Barbados Blvd.  
Scarborough, Ontario M1J 1K9  
Tel: (416) 261-7182 Fax: (416) 261-5663

## SAFETY DATA SHEET (SDS)

<b>PRODUCT NAME: METHANOL</b>	
<b>HEALTH HAZARD RATING:</b>	(1)- LOW HAZARD NFPA Rating
<b>FLAMMABILITY HAZARD RATING:</b>	(3)- HIGH. HAZARD
<b>REACTIVITY HAZARD RATING:</b>	(0)- MINIMAL HAZARD
<b>PERSONAL PROTECTION:</b>	H - (Splash goggles, Gloves, Synthetic apron, Vapor respirator)
<b>HAZARD ALERT SIGN:</b>	

<b>SECTION 1 – IDENTIFICATION</b>	
<b>PRODUCT IDENTIFIER</b>	
<b>PRODUCT NAME</b>	METHANOL
<b>MANUFACTURER'S NAME AND ADDRESS EMERGENCY PHONE NO.</b>	G.K. Chemical Specialties Co. Inc. 90 Barbados Blvd. Scarborough, Ontario M1J 1K9 (416) 261-7182 / 905 427-7605/ 416-526-4037
<b>SUPPLIER'S NAME AND ADDRESS EMERGENCY PHONE NO.</b>	
<b>CHEMICAL NAME</b>	METHYL ALCOHOL
<b>CHEMICAL FAMILY</b>	ALCOHOL Formula: CH <sub>3</sub> OH
<b>TRADE NAME AND SYNONYMS</b>	METHANOL, METHYL ALCOHOL, METHYL HYDRATE, WOOD SPIRIT, METHYL HYDROXIDE
<b>MATERIAL USE</b>	INDUSTRIAL, COMMERCIAL, LABORATORY USE

G.K. Chemical Specialties Co. Inc. has compiled the information and recommendations contained in this Safety Data Sheet from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation.

G.K. Chemical Specialties Co. Inc. extends no warranty and assumes no responsibility as to the accuracy of the content or sufficiency of the information and expressly disclaims all liability for reliance thereon. This SDS provides guidelines for the safe handling of this product. It does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.

G.K. Chemical Specialties Co. Inc. assumes no responsibility for personal injury or property damage to vendors, users or third parties caused by the material. Such vendors or users assume all risks associated with the use of the material.

INGREDIENTS. This SDS, under section of Ingredients, contains all ingredients listed under INGREDIENT DISCLOSURE LIST P.C. 1987-2719, 20/1/88 CANADA GAZETTE PART II VOL. 122, No 2 of HAZARDOUS PRODUCT ACT.

Percentage range of concentration of ingredients is expressed as percentage by weight of the total weight of the product. Ingredient List does not necessarily list all ingredients in the formulation and does not necessarily list all ingredient range of concentration, other than ingredients under the Disclosure List.

T.L.V. (units) or Threshold Limit Values refer to the limiting concentrations recommended by the Ministry of Labour. These values were adopted by the American Conference of Governmental Industrial Hygienists (A.C.G.I.H.). The figures refer to time-weighted average concentrations as P.P.M. (V/V) or mg/m<sup>3</sup> for a normal working day or at any time for some materials.

“C.A.S REG. No.” means the identification number assigned to a chemical substance by the Chemical Abstracts Service Division of the American Chemical Society.

“LC 50” means the concentration of a substance in air that when administered by means of inhalation over a specified length of time in an animal assay, is expected to cause the death of 50 per cent of a defined animal population.

“LD 50” means the single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause death of 50 per cent of a defined animal population.

FLASH POINT. The minimum temperature at which a substance gives off flammable vapors which in contact with spark or flame will ignite.

NIOSH- National institute for occupational safety and health

STEL- Short term exposure limit

TWA- Time-weighted average

PEL- Permissible exposure limit

ACGIH- American conference of governmental industrial hygienist

OSHA- Occupational safety and health act

## SECTION 2 – HAZARD IDENTIFICATION

Dangerous Goods: **WHMIS:** Class 3, Subsidiary Risk 6.1, Packing Group II

### GHS CLASSIFICATION

Acute Toxicity (inhalation) – Category 3  
Acute Toxicity (oral, dermal) – Category 3  
Eye Damage/ Irritation – Category 2  
Skin Corrosion/Irritation – Category 2  
Skin Sensitization – Category 1  
Germ Cell Mutagenicity – Category 2  
Carcinogenicity- Category 1B  
Toxic to Reproduction – Category 2  
Specific Target Organ Toxicity (Repeated Exposure) – Category 2  
Flammable liquids- Category 2  
Toxic to the Aquatic Environment- Acute Hazard – Category 2



### HAZARDOUS SUBSTANCE (HSNO) CLASSIFICATION

Flammable Liquid – Category 3.1B  
Oral, Inhalation, Dermal – Category 6.1C  
Eye Irritant- Category 6.4A  
Reproductive/ Developmental Toxicant – Category 6.8B  
Specific target organ toxicity- Category 6.9A  
Terrestrial Vertebrate Eco toxicity – Category 9.3C



GHS Label Elements, including precautionary statements: Hazard Statements:

**Signal word- DANGER:** May be fatal if swallowed,



### HAZARD STATEMENTS

H302- Harmful if swallowed  
H226- Flammable liquid and vapor.  
H301- Toxic if swallowed  
H311- Toxic in contact with skin.  
H331- Toxic if inhaled  
H370- Causes damage to organs



### PREVENTION

P210- Keep away from heat/sparks/open flames/hot surfaces- No smoking  
P261- Avoid breathing dust/fumes/gas/mist/vapors/spray  
P233- Keep container tightly closed  
P240- Ground/bond container and receiving equipment  
P241- Use explosion-proof electrical, ventilating, lighting and other equipment.  
P242- Use only non-sparking tools.  
P264- Wash hands and skin thoroughly after handling

### RESPONSE

P305+P351+P338- IF IN EYES: Rinse cautiously with water for several minutes: Remove contact lenses if present and easy to do so. Continue rinsing.  
P301 + P310: If swallowed: Immediately call a POISON CENTER or doctor/ physician.  
P304 +P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

	<p>P361: Remove/Take off immediately all contaminated clothing.  P370 +P379: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  P403 +P233: Store in a well –ventilated place. Keep container tightly closed.</p> <p><b>POTENTIAL HEALTH EFFECTS</b>  May cause damage to central nervous system through prolonged or repeated exposure.  May cause fetotoxic ( toxic to the fetus during the later stages of pregnancy) and teratogenic effects (causing malformations of the fetus), based on animal information  <b>INHALATION:</b> May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness. Can cause irritation of mucous membranes and central nervous system depression.  <b>SKIN:</b> May be harmful if absorbed through skin. Causes skin irritation  <b>INGESTION:</b> May be fatal if swallowed</p>
	<p>FLAMMABLE LIQUID AND VAPOUR: Burns with a clean, clear flame, which is almost invisible in daylight, or a light blue flame</p>

<b>SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS</b>				
<b>HAZARDOUS INGREDIENTS</b>	<b>APPROXIMATE CONCENTRATION%</b>	<b>C.A.S., N.A. OR U.N. NUMBERS</b>	<b>LD50 {SPECIFY SPECIES &amp; ROUTE}</b>	<b>LC 50 {SPECIFY SPECIES &amp; ROUTE}</b>
Methanol	➤ 99	67-56-1	Oral(Rat): 5628 mg/kg Dermal (Rabbit): 15,800mg/kg. Inhalation: rat-8 h : 64,000 ppm	

<b>SECTION 4 – FIRST AID MEASURES</b>	
<b>SKIN CONTACT</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
<b>EYE CONTACT</b>	Immediately hold eyelids open and flush with water for at least 15 minutes. Seek medical attention.
<b>INHALATION</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary
<b>INGESTION</b>	May be harmful if swallowed. Do not induce vomiting. Drink 1 or 2 glasses of water. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.
<b>NOTES TO PHYSICIAN</b>	Treatment based on sound judgment of physician and individual reaction of patient. Onset of symptoms may be delayed for 18 to 24 hours after digestion. Ethanol significantly decreases the toxicity of methanol because it competes for the same metabolic enzymes and has been used to treat methanol poisoning

<b>SECTION 5 – FIRE-FIGHTING MEASURES</b>	
<b>FLASH POINT ( °C)</b>	CLOSED CUP: 11.667°C (53°F)- 12.778°C (55°F) (TAG)
<b>FLASH POINT METHOD</b>	Closed Cup or Tag
<b>AUTOIGNITION TEMPERATURE ( °C )</b>	464°C (867.2°F)
<b>UPPER FLAMMABLE LIMIT ( % VOL.)</b>	36,5 %
<b>LOWER FLAMMABLE LIMIT ( % VOL. )</b>	6 %
<b>HAZARDOUS COMBUSTION PRODUCTS</b>	Carbon Dioxide ( CO <sub>2</sub> ), Carbon monoxide, Formaldehyde
<b>UNUSUAL FIRE/ EXPLOSION HAZARDS</b>	Risks of explosion of the product in presence of mechanical impact: No. Explosive in presence of open flames, sparks, or heat.
<b>SENSITIVITY TO MECHANICAL IMPACT</b>	No.
<b>SENSITIVITY TO STATIC DISCHARGE</b>	Yes but low
<b>EXTINGUISHING MEDIA</b>	Water spray, foam, dry powder or Carbon Dioxide. Use media appropriate for surrounding fire
<b>SPECIAL FIRE FIGHTING PROCEDURES</b>	Fire fighters should wear full protective clothing, including self-contained breathing equipment. Vapor may travel considerable distance to source of ignition and flash back. CAUTION: MAY BURN NEAR INVISIBLE FLAME. Concentrations of greater than 25% methanol in water can be ignited

<b>SECTION 6 – ACCIDENTAL RELEASE MEASURES</b>	
<b>LEAK AND SPILL PROCEDURE</b>	Stop leak. Move containers from spill area. Absorb spill with vermiculite or other noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination.
<b>ENVIRONMENTAL PRECAUTIONARY</b>	Prevent entry into sewers or streams. Any release to the environment may be subject to federal or local reporting requirements.
<b>PERSONAL PRECAUTIONARY MEASURES</b>	Wear protective clothing during cleanup. See section 8 for recommendations on the use of personal protective equipment. Avoid breathing vapors, mist or gas

<b>SECTION 7 – HANDLING AND STORAGE</b>	
<b>HANDLING PROCETURES</b>	Avoid contact with eyes. Avoid ingestion. Use good industrial hygiene practices in handling this product. Keep container closed when not in use. Take measure to prevent the buildup of electrostatic charge
<b>STORAGE NEEDS</b>	Keep container tightly closed. Store in a cool area. Containers coated with copper (or copper alloys), Zinc (including galvanized steel ), or Aluminum are unsuitable for storage. These materials may be attacked slowly by the Methanol.

<b>SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
<b>VENTILATION REQUIREMENTS</b>	General ventilation is recommended. When TLV (Threshold Limit Value over 8 hours of work) is greater than 250 ppm (328 mg/ m <sup>3</sup> ) provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective. IDLH: 6000 ppm, acute inhalation toxicity to animals

<b>PROTECTIVE EQUIPMENT</b>	Ensure that eyewash stations are proximal to the work-station location. The selection of personal protective equipment will vary depending on the condition of use
<b>EYE/TYPE</b>	Splash goggles
<b>RESPIRATORY/TYPE</b>	Approved/ certified vapor respirator when airborne concentration exceed exposure limits.
<b>GLOVE/TYPE</b>	Nitrile, Vinyl, Butyl impervious gloves
<b>FOOTWEAR/TYPE</b>	Boots. Chemical resistant and as specified by the workplace
<b>BODY/TYPE</b>	Protective clothing is required. Use impervious clothing (apron, coveralls). The selection of personal protective equipment will vary depending on the conditions of use.

<b>SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>APPEARANCE – PHYSICAL STATE</b>	Clear thin liquid
<b>ODOUR</b>	Mild characteristic alcohol odour
<b>ODOUR THRESHOLD (PPM)</b>	4.2-5962 PPM detection
<b>PH</b>	Not available
<b>MELTING POINT ( °C)</b>	See freezing point
<b>BOILING POINT ( °C )</b>	64.7°C (148° F) INITIAL
<b>FREEZING POINT ( °C )</b>	-97.8°C (-144° F)
<b>EVAPORATION RATE</b>	4.1 (n-Butyl acetate =1)
<b>FLAMMABILITY</b>	Flammable
<b>FLASH POINT ( °C)</b>	12°C (54°F)
<b>AUTO IGNITION TEMPERATURE</b>	464°C (867°F)
<b>DECOMPOSITION TEMPERATURE</b>	Not available
<b>VAPOUR DENSITY</b>	(air= 1) 1.105 @ 15°C
<b>VAPOUR PRESSURE</b>	@ 20°C 33mmHg = 12.8 Kpa
<b>SOLUBILITY</b>	Completely soluble in water
<b>VISCOSITY</b>	Thin liquid
<b>% VOLATILE BY VOLUME</b>	100 %
<b>SPECIFIC GRAVITY</b>	0.82 ± 0.01 gm / cm <sup>3</sup> @ 20°C

<b>SECTION 10 – STABILITY AND REACTIVITY</b>	
<b>REACTIVITY</b>	None known , based on information available
<b>CHEMICAL STABILITY</b>	Stable under normal conditions
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	No
<b>CONDITIONS TO AVOID</b>	Keep away from heat, flame and sparks. Avoid incompatible materials
<b>INCOMPATIBLE MATERIALS</b>	Avoid contact with strong oxidizers, strong mineral or organic acids, and strong bases. May be corrosive to lead, Aluminum, Magnesium, and Platinum. May attack some plastic, rubber and coating materials,
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Carbon Dioxide (CO <sub>2</sub> ), Carbon monoxide, Formaldehyde

<b>SECTION 11 –TOXICOLOGICAL INFORMATION</b>	
<b>TOXICITY EFFECTS ON ANIMALS</b>	<b>Methanol (67-56-1):</b> Acute oral toxicity (LD50): 1187-2769 mg/kg (Rat), LD50 dermal (Rabbit) 17,000 mg/kg, LC50 inhalation/ 4h (Rat) 1282 mg/kg

<b>TOXIC EFFECTS ON HUMANS</b>	Hazardous in case of ingestion or inhalation. Swallowing even small amounts of Methanol could potentially cause blindness or death. Effects of sub lethal doses may be nausea, headache, abdominal pain, vomiting and visual disturbances ranging from blurred vision to light sensitivity. Hazardous in case of skin contact (irritant, sensitizer, permeator). Methanol can be absorbed through the skin and harmful effects have been reported by this route of entry. Effects are similar to those as inhalation. Methanol is a mild to moderate eye irritant.
<b>CHRONIC EFFECTS ON HUMANS</b>	Prolonged contact with skin may defat tissue causing dermatitis or skin problems.
<b>CARCINOGENICITY</b>	No evidence
<b>TERATOGENICITY</b>	Methanol has produced fetotoxicity in rats exposed by inhalation to high conc.
<b>MUTAGENICITY</b>	No evidence
<b>REPRODUCTIVE EFFECTS</b>	No evidence

<b>SECTION 12 – ECOLOGICAL INFORMATION</b>	
<b>ECOTOXICITY DATA</b>	<b>Methanol (67-56-1):</b> Eco toxicity in water (LC50): 15,400-29,400 mg/l 96 hours (fish, EC50/48h/daphnia: >10,000 mg/l)
<b>BIODEGRADABILITY</b>	Readily Biodegradable. Does not bio accumulate. Biochemical Oxygen Demand (BOD) 600-1120 mg/g
<b>PRODUCTS OF DEGRADATION</b>	The product itself and its products of degradation are not toxic

<b>SECTION 13 – DISPOSAL CONSIDERATIONS</b>	
<b>WASTE DISPOSAL</b>	Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations
<b>INFORMATION ON SAFE HANDLING FOR DISPOSAL INCLUDING ANY CONTAMINATED PACKAGING</b>	Suitable waste facility

<b>SECTION 14 – TRANSPORT INFORMATION</b>	
<b>UN NUMBER</b>	1230 PK: II
<b>UN PROPER SHIPPING NAME</b>	METHANOL
<b>TRANSPORT HAZARD CLASS</b>	CLASS 3(6.1). Air Transport-Packing instruction 305, 1 litre maximum/ pk
<b>PACKAGING GROUP</b>	II
<b>ENVIRONMENTAL HAZARDS</b>	NO
<b>TRANSPORT IN BULK, if applicable</b>	NOT AVAILABLE
<b>SPECIAL PRECAUTIONS</b>	Guide to Canadian transportation. Emergency Response Guidebook (ERG): # 131

<b>SECTION 15 – REGULATORY INFORMATION</b>	
<b>SAFETY HEALTH &amp; ENVIRONMENTAL REGULATIONS SPECIFIC TO THE PRODUCT</b>	U.S. TSCA inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) INVENTORY List or exempt. Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL) or exempt.

<b>SECTION 16 – OTHER INFORMATION</b>	
<b>PREPARED BY:</b>	Gus Kaklamanos - Chemist
<b>TELEPHONE NO.:</b>	416-261-7182
<b>DATE OF THE LATEST REVISION OF SDS:</b>	Feb. 11, 2018