








Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Personal protective equipment
 	Class B-2: Flammable liquid Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).	  

Section 1. Product and Company Identification

Product name / Trade name	Windshield Washer Concentrate wintergreen bittered	Associated Product's Item Code	85-228WGB
Synonym	Not available.	CAS #	67-56-1
Chemical family	Alcohol. (Solvent.)	Validation date	15/09/2010.
Chemical formula	CH ₃ OH	Print date	15/09/2010.
Manufacturer/Supplier	Recochem Inc. 850 Montee de Liesse Montreal, Quebec 514-341-3550	In case of emergency	Recochem Inc. Communications and Regulatory Affairs Department (905) 878-5544
Material uses	Not available.		

Section 2. Hazards identification

Emergency Overview	WARNING! FLAMMABLE LIQUID AND VAPOR. MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. Flammable liquid. Keep away from heat, sparks and flame. Avoid breathing vapor or mist. Avoid contact with skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use.
Potential Acute Health Effects	See section 11 for more detailed information on health effects and symptoms. Extremely hazardous by the following route of exposure: of ingestion. Hazardous by the following route of exposure: of inhalation. Slightly hazardous by the following route of exposure: of skin contact (irritant, permeator), of eye contact (irritant). Non-sensitizer to skin. Severe over-exposure can result in death.
Note to Physician	Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to CNS, eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

Section 3. Composition, information on ingredients

Canada

Name	CAS number	Conc. (% w/w)
Methanol	67-56-1	95 - 99

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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**Section 4. First aid measures**

Eye contact	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact	In case of contact, immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Notes to physician	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5. Fire-fighting measures

Products of combustion	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Fire-fighting media and instructions	Use dry chemical, CO ₂ , water spray (fog) or foam.
Fire Hazards	Explosive in the form of vapor when exposed to heat or flame. Vapor may travel a considerable distance to source of ignition and flash back. Emits acrid smoke and irritating fumes when heated to decomposition.
Explosion Hazards	Highly flammable liquid and vapor.

Section 6. Accidental release measures

Small spill and leak	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
Large spill and leak	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and Storage

Handling	Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
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Storage Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Engineering controls Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Personal protection

Eyes Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles
Possible: face shield

Body Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Possible: safety apron coveralls boots.

Respiratory Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. >8 hours (breakthrough time): nitrile rubber

United States

Product name

Methanol

Exposure limits

ACGIH TLV (United States, 1/2008). Absorbed through skin.

TWA: 200 ppm 8 hour(s).

TWA: 262 mg/m³ 8 hour(s).

STEL: 250 ppm 15 minute(s).

STEL: 328 mg/m³ 15 minute(s).

OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.

TWA: 200 ppm 8 hour(s).

TWA: 260 mg/m³ 8 hour(s).

STEL: 250 ppm 15 minute(s).

STEL: 325 mg/m³ 15 minute(s).

NIOSH REL (United States, 6/2008). Absorbed through skin.

TWA: 200 ppm 10 hour(s).

TWA: 260 mg/m³ 10 hour(s).

STEL: 250 ppm 15 minute(s).

STEL: 325 mg/m³ 15 minute(s).

OSHA PEL (United States, 11/2006).

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TWA: 200 ppm 8 hour(s).
TWA: 260 mg/m³ 8 hour(s).
OSHA (United States, 2003).
TWA: 200 ppm 8 hour(s).
TWA: 260 mg/m³ 8 hour(s).

**Canada
Occupational exposure limits**

Ingredient	List name	TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
		ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
Methanol	US ACGIH 1/2008	200	262	-	250	328	-	-	-	-	[1]
	AB 6/2008	200	262	-	250	328	-	-	-	-	[1]
	BC 6/2008	200	-	-	250	-	-	-	-	-	[1]
	ON 6/2008	200	260	-	250	325	-	-	-	-	[1]
	QC 6/2008	200	262	-	250	328	-	-	-	-	[1]

[1] Absorbed through skin.

Section 9. Physical and chemical properties

Physical State and Appearance	Liquid.	Odour	Wintergreen. [Slight]
Molecular weight	32.04 g/mole	Taste	Bitter.
pH	7	Colour	Blue.
Boiling/condensation point	64.5°C (148.1°F)	Volatility	100% (v/v)
Melting/freezing point	-98°C (-144°F)	Evaporation rate	5.9 (Butyl acetate. = 1)
Relative density	0.79	Odour Threshold	2000 ppm
Vapour Pressure	12.8 kPa (96 mm Hg)	Viscosity	Not available.
Vapour Density	1.11 [Air = 1]	Solubility	Easily soluble in the following materials: cold water, hot water and diethyl ether.
VOC Content	100 % (w/w)	Other Properties	Not available.

The product is: Flammable.**Auto-ignition temperature** 385°C (725°F)**Flash Point** CLOSED CUP: 11°C (51.8°F). (Tagliabue.)**Flammable limits**
Lower: 6%
Upper: 36%

Fire hazards in the presence of various substances

Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Non-flammable in the presence of the following materials or conditions: shocks and mechanical impacts.
Explosive in the form of vapor when exposed to heat or flame. Vapor may travel a considerable distance to source of ignition and flash back. Emits acrid smoke and irritating fumes when heated to decomposition.

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**Section 10. Stability and reactivity**

Stability	The product is stable.
Conditions of instability	Not available.
Incompatibility with various substances	Slightly reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information**Canada****Acute toxicity**

Methanol	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Dermal	Rabbit	15840 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

Conclusion/Summary Not available.

Chronic toxicity

Conclusion/Summary Not available.

Carcinogenicity

Conclusion/Summary May be fatal or cause blindness if swallowed.
Chronic Exposure Effects can include one or all of the following: Acute poisoning, headaches, nausea, vomiting, unconsciousness, kidney and liver damage.
Exposure can cause dermatitis.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Methanol	A5	4	-	-	-	None.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

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**Section 12. Ecological information**

For accidental discharges into the environment, see Section 6: "Accidental Release Measures" for suggested instructions.

Ecotoxicity : Readily biodegradable

Canada**Aquatic ecotoxicity**

Product/ingredient name	Result	Species	Exposure
Methanol	Acute LC50 2500000 ug/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 >100000 ug/L Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours

Conclusion/Summary : Not available.

Biodegradability

Conclusion/Summary : Not available.

Section 13. Disposal considerations

Waste information The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information**Canada TDG Classification**

Class Class 3: Flammable liquid.

Subsidiary class Class 6.1: Toxic substance.

Proper Shipping Name (Canada) TDG Methanol

UN number UN 1230

Packing Group II

Special provisions In containers of 1 L (1Kg) capacity or less this product is classified as a "Limited Quantities" "Consumer Commodity" under TDG regulations.



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**IMDG Classification**

Class	Class 3: Flammable liquid.
Subsidiary class	Class 6.1: Toxic substance.
Proper Shipping Name IMDG	Methanol
UN number	UN 1230
Packing Group	II
Marine pollutant	Not a pollutant.
Special provisions	Remarks In containers of 1 L (1Kg) capacity or less this product is classified as a "Limited Quantity" under IMDG regulations



No placard (handling and hazard label) required.

United States DOT (Classification)

Class	Class 3: Flammable liquid.
Subsidiary class	Class 6.1: Toxic substance.
Proper Shipping Name (United States) DOT	Methanol
UN number	UN 1230
Packing Group	II
Special provisions	In containers of 1 L (1Kg) this product is qualified as a "consumer commodity" ORM-D under DOT



International Air Transport Association (IATA) For air shipment classification and associated regulations, please refer to the latest edition of IATA Dangerous Goods Regulations.

Section 15. Regulatory information

WHMIS Classification (Canada)	Class B-2: Flammable liquid Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).
Canada Domestic Substances List (DSL) Status	This product and/ or all of its components are on the DSL.



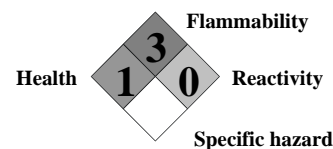
**HCS Classification
(U.S.A.)** Flammable liquid
Target organ effects

U.S.A. Regulatory Lists This product and/ or all of its components are on the TSCA inventory list.

**Hazardous Material Information System
(U.S.A.)**

Health	1
Flammability	3
Reactivity	0
Personal protection	B

**National Fire Protection Association
(U.S.A.)**



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Section 16. Other information

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MSDS are available at www.recochem.com