

<b>WHMIS Symbols</b> 	<b>WHMIS (Classification)</b> Class B-2: Flammable liquid Class D-1B: Material causing immediate and serious toxic effects (Toxic) Class D-2B: Material causing other toxic effects (Toxic) Class D-2A: Material causing other toxic effects (Very toxic)	 <b>Protective Equipment</b>						
<b>1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION</b> <b>PRODUCT NAME:</b> Windshield Washer Fluid 0°C to - 40°C <b>MANUFACTURER:</b> 2249648 Ontario Inc. (NovoSolution Ontario) 450 Milligan Lane Napanee, Ontario K7R 3Z3 www.novosolution.ca <b>MATERIAL USES:</b> Consumer Products and Commercial Bulk Supply		<b>Date:</b> Oct 22, 2013						
<b>IN CASE OF EMERGENCY:</b> <b>NovoSolution Ontario</b> - Will Benedikt 613-483-9228								
<b>2. HAZARD IDENTIFICATION</b> <b>EMERGENCY OVERVIEW:</b> <b>WARNING!</b> No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing. NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. <b>POTENTIAL ACUTE HEALTH EFFECTS:</b> See section 11 for more detailed information on health effects and symptoms. Extremely dangerous in case of ingestion. Hazardous in case of inhalation. Slightly hazardous in case of skin contact (irritant, permeator) of eye contact (irritant). Non-sensitizer for skin. Severe over-exposure can result in death. <b>NOTE TO PHYSICIAN:</b> 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.								
<b>3. COMPOSITION, INFORMATION ON INGREDIENTS (Not intended as Specifications)</b> <table border="1"> <thead> <tr> <th>Ingredient</th> <th>CAS number</th> <th>% Concentration</th> </tr> </thead> <tbody> <tr> <td>Methanol</td> <td>67-56-1</td> <td>40-50</td> </tr> </tbody> </table> <p>There are no ingredients or additional 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.</p>			Ingredient	CAS number	% Concentration	Methanol	67-56-1	40-50
Ingredient	CAS number	% Concentration						
Methanol	67-56-1	40-50						

#### 4. FIRST AID MEASURES

<b>EYE CONTACT:</b>	Immediately flush eyes with plenty of water for at least 60 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>SKIN CONTACT:</b>	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>INHALATION:</b>	Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>INGESTION:</b>	Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>NOTE TO PHYSICIAN:</b>	<p>Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</p> <p>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.</p>

#### 5. FIRE-FIGHTING MEASURES

<b>FIRE-FIGHTING MEDIA:</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>FIRE HAZARDS:</b>	Explosive in the form of vapor when exposed to heat or flame. Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition, it emits acrid smoke and irritating fumes.
<b>EXPLOSION HAZARDS:</b>	No additional remark.

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILL AND LEAK:

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up or absorb with an inert dry material and place in an appropriate waste disposal container. 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. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). 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.

## 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 vapour or mist. Keep in the original container or alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### STORAGE:

Store in accordance with local regulations. 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. 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.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### ENGINEERING CONTROLS:

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Eye Protection:

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, gases or dusts. Recommended: splash goggles

#### Skin Protection:

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

**Respiratory Protection:** 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.

**Body Protection:** 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.

**EXPOSURE LIMITS:**

**CA Alberta Provincial (Canada, 10/2006). Skin**

8 hrs OEL: 262 mg/m<sup>3</sup> 8 hour(s).

8 hrs OEL: 200 ppm 8 hour(s).

15 min OEL: 250 ppm 15 minute(s).

15 min OEL: 328 mg/m<sup>3</sup> 15 minute(s).

**CA British Columbia Provincial (Canada, 7/2007). Skin**

TWA: 200 ppm 8 hour(s).

STEL: 250 ppm 15 minute(s).

**CA Ontario Provincial (Canada, 3/2007). Skin**

TWAEV: 200 ppm 8 hour(s).

TWAEV: 260 mg/m<sup>3</sup> 8 hour(s).

STEV: 250 ppm 15 minute(s).

STEV: 325 mg/m<sup>3</sup> 15 minute(s).

**CA Quebec Provincial (Canada, 12/2006). Skin**

TWAEV: 200 ppm 8 hour(s).

TWAEV: 262 mg/m<sup>3</sup> 8 hour(s).

STEV: 250 ppm 15 minute(s).

STEV: 328 mg/m<sup>3</sup> 15 minute(s).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State and Appearance:** Liquid

**pH:** 8 to 10.5

**Relative Density:** 0.9 to 0.95

**Vapor Pressure:** <12.8 kPa (<96 mm Hg)

**Vapor Density:** <1.11 [Air = 1]

**Odour:** Alcohol [Slight]

**Colour:** Blue

**Evaporation Rate:** 2.1 compared to Butyl acetate

**Solubility:** Soluble in water

**The product:** May be combustible at high temperature

**Auto-ignition temperature:** 385°C (725°F)

**Flash Point:** Closed cup: 28°C (82.4°F) [Tagliabue]

**Flammable limits**  
Lower: 6%  
Upper: 36%

**Fire hazard in the presence of various substances:** Product may sustain a flame when source of ignition applied.

## 10. STABILITY AND REACTIVITY

<b>STABILITY:</b>	The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>INCOMPATIBILITY WITH VARIOUS SUBSTANCES:</b>	Slightly reactive to reactive with oxidizing agents, acids, alkalis.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. TOXICOLOGICAL INFORMATION

<b>ACUTE TOXICITY METHANOL:</b>	<b><u>Result</u></b>	<b><u>Species</u></b>	<b><u>Dose</u></b>	<b><u>Exposure</u></b>
	LD50 Dermal	Rabbit	15840 mg/kg	-
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Intraperitoneal	Rat	7529 mg/kg	-
	LD50 Intravenous	Rat	2131 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Oral	Rat	8 g/kg	-
	TDL <sub>0</sub> Intraperitoneal	Rat	3490 mg/kg	-
	TDL <sub>0</sub> Intraperitoneal	Rat	3000 mg/kg	-
	TDL <sub>0</sub> Oral	Rat	3 g/kg	-
	TDL <sub>0</sub> Oral	Rat	3500 mg/kg	-

**CARCINOGENICITY CONCLUSION / SUMMARY:** May be fatal or cause blindness if swallowed.

**CLASSIFICATION:** Methanol A5 4 ----None

## 12. ECOLOGICAL INFORMATION

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

**ENVIRONMENTAL EFFECTS:** No known significant effects or critical hazards.

<b>AQUATIC ECOTOXICITY METHANOL:</b>	<b><u>Result</u></b>	<b><u>Species</u></b>	<b><u>Dose</u></b>	<b><u>Exposure</u></b>
	LD50 Dermal	Rabbit	15840 mg/kg	-
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Intraperitoneal	Rat	7529 mg/kg	-
	LD50 Intravenous	Rat	2131 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Oral	Rat	8 g/kg	-
	TDL <sub>0</sub> Intraperitoneal	Rat	3490 mg/kg	-
	TDL <sub>0</sub> Intraperitoneal	Rat	3000 mg/kg	-
	TDL <sub>0</sub> Oral	Rat	3 g/kg	-
	TDL <sub>0</sub> Oral	Rat	3500 mg/kg	-
	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Intraperitoneal	Rat	2735 mg/kg	-
	LD50 Intravenous	Rat	1088 mg/kg	-
	LD50 Oral	Rat	5045 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
	TDL <sub>0</sub> Intraperitoneal	Rat	800 mg/kg	-

### 13. DISPOSAL CONSIDERATIONS

**WASTE INFORMATION:**

The generation of waste should be avoided or minimized wherever possible. 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.

### 14. TRANSPORT INFORMATION

**CANADA TDG CLASSIFICATION:**

<b>Class</b>	Not applicable
<b>Subsidiary Class</b>	Not applicable
<b>Proper Shipping Name</b>	Windshield washer antifreeze, Alcohol exempt.
<b>UN number</b>	Not applicable
<b>Packing Group</b>	Not applicable
<b>Special Provisions</b>	In containers of 450L or less, In containers of 450L or less, this product meets the requirements for exemption under TDG regulation special provisions, part 1, section 1.36b: Class 3, Flammable liquids: Alcohol Exemption.

**IMDG CLASSIFICATION:**

<b>Class</b>	Class 3: Flammable Liquid
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<b>Proper Shipping Name</b>	Alcohols, n.o.s. (Methanol)
<b>UN number</b>	UN 1986
<b>Packing Group</b>	III
<b>Marine Pollutant</b>	Not a Pollutant
<b>Special Provisions</b>	<u>Emergency schedules (EmS)</u> 3-06

Remarks  
In a means of containment of 5 L capacity or less this product is classified as a "Limited Quantity"

## 15. REGULATORY INFORMATION

<b>WHMIS CLASSIFICATION:</b>	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).
<b>CANADIAN DOMESTIC SUBSTANCES LIST (DSL) STATUS:</b>	This product and/or all of its components are on the DSL

## 16. OTHER INFORMATION

<b>VALIDATED AND VERIFIED BY:</b>	Will Benedikt Compliance and Technical Information Manager NovoSolutions Ontario October, 22, 2013 Phone: 613-483-9228
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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.*