

# MATERIAL SAFETY DATA SHEET



## 1. Product and company identification

|                                |                                                                                                                                                                                                                                           |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b>            | : Windshield Washer Fluid WWAF -40 & WWAF -35°C                                                                                                                                                                                           |
| <b>PRODUCT CODE</b>            | : 0800, 0790                                                                                                                                                                                                                              |
| <b>PRODUCT USE</b>             | : Windshield Washer fluid                                                                                                                                                                                                                 |
| <b>WHMIS CLASSIFICATION</b>    | : Class B-2: Flammable liquid<br>Class D-1B: Material causing immediate and serious toxic effects (Toxic).<br>Class D-2A: Material causing other toxic effects (Very toxic).<br>Class D-2B: Material causing other toxic effects (Toxic). |
| <b>SUPPLIER</b>                | : NEMCO RESOURCES LTD.<br>25 Midland Street<br>Winnipeg, Manitoba<br>R3E 3J6 Canada                                                                                                                                                       |
| <b>Date Issued</b>             | : August, 2013                                                                                                                                                                                                                            |
| <b>Supplier (call collect)</b> | : 204-788-1030                                                                                                                                                                                                                            |
| <b>CANUTEC</b>                 | : 613-996-6666                                                                                                                                                                                                                            |

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS#        | Concentration By Vol% | LD50 of Ingredient                                     | LC50 of Ingredient              |
|-----------|-------------|-----------------------|--------------------------------------------------------|---------------------------------|
| Methanol  | 67-56-1     | 42-45 min             | 5 628 mg/kg(Oral, Rat)<br>15 800 mg/kg(Dermal, Rabbit) | 64 000 ppm(Inhalation, Rat, 4h) |
| Water     | 7732-18-5   | 35-56 max             | <b>Not applicable</b>                                  | <b>Not applicable</b>           |
| Inhibitor | PROPRIETARY | 2 max                 | <b>Not available</b>                                   | <b>Not available</b>            |

### 3. Hazards identification

WHMIS: HEALTH: 1 FLAMMABILITY: 3 REACTIVITY: 0 PERSONAL PROTECTION: A

|                     |                       |
|---------------------|-----------------------|
| <b>HEALTH</b>       | <b>1</b>              |
| <b>FLAMMABILITY</b> | <b>3</b>              |
| <b>REACTIVITY</b>   | <b>0</b>              |
| <b>OTHER</b>        | <b>NOT APPLICABLE</b> |

| <b>OSHA<br/>PERMISSIBLE EXPOSURE LIMIT*</b>        | <b>NIOSH REL</b>                                                                               | <b>ACGIN THRESHOLD LIMIT<br/>VALUE</b>                                                                                           | <b>IDLH<br/>(NIOSH)</b>        |
|----------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 200 ppm (260 mg/m <sup>3</sup> ) 8-Hour TWA (Skin) | 200 ppm (260 mg/m <sup>3</sup> ) 8-Hour TWA<br>250 ppm (310 mg/m <sup>3</sup> ) Ceiling (Skin) | 200 ppm (260 mg/m <sup>3</sup> ) 8-Hour TWA<br>250 ppm (310 mg/m <sup>3</sup> ) Short-term Exposure Limit (15-minute TWA) (Skin) | 6,000 ppm (0.6 percent in air) |

\* This MSDS contains the 1989 PEL's and from the June 1993 Air Contaminants Final Rule, specified in Tables Z-1, Z-2, and Z-3 [Federal Register; 58(124):35338-35351; June 30, 1993].

**Emergency Overview: WARNING!**

**NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.**

- 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.

## 4. FIRE FIGHTING MEASURES

**Flammable Limits** : UEL - 36 percent for methanol LEL - 6 percent for methanol

**Auto ignition Temperature** : 878°F for methanol

**Extinguishing Media for Methanol:**

Small Fires: Dry chemical, carbon dioxide, water spray or alcohol resistant foam.

Large Fires: Water spray, fog or alcohol-resistant foam

**Special Fire Fighting Procedures:**

Move container away from fire area if you can do so without risk. Dike fire control water for later disposal; do not scatter the material.

Apply cooling water to the sides of containers exposed to flames until well after the fire is out.

**Unusual Fire and Explosion Hazards for Methanol**

Flammable/combustible material; may be ignited by heat, spark or flame. Vapors may travel to a source of ignition and flash back. Container may explode in heat of fire. Vapor explosion and poison hazard indoors, outdoors, or in sewers. Runoff to sewer may create fire or explosion hazard.

## 5. REACTIVITY DATA

**Stability/Polymerization** : In a closed container, methyl alcohol is stable at room temperature and it is stable under routine handling and storage. Hazardous polymerization will not occur.

**Incompatibility (Material to Avoid)** : Incompatible with beryllium dihydride; metals; oxidants; potassium tertbutoxide; carbon tetrachloride + metals; dichloromethane. Can react vigorously with oxidizing materials. Explosive reaction with chloroform + sodium methoxide; diethyl zinc. Violent reaction with alkyl aluminum salts; acetylene bromide; chloroform + sodium hydroxide; CrO<sub>3</sub>; cyanuric chloride; (I + ethanol + HgO); Pb(ClO<sub>4</sub>)<sub>2</sub>; HClO<sub>4</sub>; P<sub>2</sub>O<sub>3</sub>; (KOH + CHCl<sub>2</sub>); nitric acid.1

**Hazardous Decomposition or By-products** : When methanol is heated to decomposition, carbon dioxide and carbon monoxide may be produced, as well as formaldehyde may be produced, and it emits acrid smoke and irritating fumes

*Note: This product does NOT contain any hazardous substances reportable under CERCLA.*

## 6. HEALTH HAZARD DATA

**Routes of Entry (Methanol)** : The primary routes of entry are inhalation, ingestion, and **absorption**

**Health Hazards and Signs and Symptoms of Exposure (Methanol)** : Irritant to eyes, skin, and upper respiratory system. Headaches, drowsiness, dizziness, vertigo, light-headed, nausea, and vomiting. Visual disturbance, optic nerve damage, and blindness. Skin exposure hazard

**Target Organs** : Central nervous system, digestive tract, eyes, and skin

**Windshield Washer Fluid WWAFF -40 & WWAFF -35°C**

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|                                                            |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Acute Effects</b>                                       | : | Eye irritation. Inhalation can result nose irritation, headache, fatigue, nausea, visual impairment or complete and possible blindness, acidosis, convulsions, circulatory collapse, respiratory fatigue, and death. Ingestion can cause gastrointestinal (GI) irritation followed by the symptoms described for inhalation and possible kidney impairment. Skin contact results in a cold sensation, dryness, and cracking, possibly leading to dermatitis. Methyl alcohol may be absorbed through the skin and may cause headache, fatigue, and visual disturbances. Eye contact results in irritation with lacrimation, inflamed lids, and photophobia. |
| <b>Chronic Effects</b>                                     | : | Chronic exposure may result in visual impairment or blindness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Medical Conditions Generally Aggravated by Exposure</b> | : | Ocular, respiratory, or dermal disorders may be aggravated by methanol exposure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Emergency and First Aid Procedures:</b>                 |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Eyes</b>                                                | : | Rinse with water 15 to 20 minutes, seek medical assistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Skin</b>                                                | : | Flush with water for 15 minutes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Inhalation</b>                                          | : | Remove from source to fresh air, provide respiratory support as needed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Ingestion</b>                                           | : | Call Physician, hospital emergency room or Poison Control Center immediately                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**GET PROMPT MEDICAL ATTENTION****7. HANDLING AND STORAGE****Steps to be Taken in Case Material is Released or Spilled**

- Keep unnecessary people away; isolate hazard area and deny entry.
- Stay upwind; keep out of low areas.
- Shut off ignition sources; no flares, smoking or flames in hazard area.
- Positive pressure self-contained breathing apparatus and chemical protective clothing is recommended for personnel involved in clean-up procedures with no fire.
- Do not walk through spilled material; stop leak if it can be done without risk.
- Water spray may reduce vapor; but it will not prevent ignition in closed spaces.

**Waste Disposal Method** : Dispose of in accordance with federal, state and local regulations.

**EPA Designations:**

|                                                 |   |                          |
|-------------------------------------------------|---|--------------------------|
| RCRA Hazardous Waste (40 CFR 261.33)            | : | Hazardous Waste No. U154 |
| CERCLA Hazardous Substance (40 CFR 302.4)       | : | Not Listed               |
| SARA Extremely Hazardous Substance (40 CFR 355) | : | Not Listed               |
| SARA Toxic Chemical (40 CFR 372.65)             | : | Not Listed               |

**DOT Designation** : Based on flash point and alcohol content, this is a Class 3, flammable liquid.

## 8. SPECIAL PROTECTION INFORMATION

- RESPIRATORY PROTECTION** : Under normal use conditions (outdoor windshield cleaning), respiratory protection is not justified.
- EYE PROTECTION** : Splash goggles are recommended when handling the solution. Contact lens use is not recommended.
- PROTECTIVE CLOTHING** : The selection of protective clothing and gloves is dependent upon anticipated exposure. As reported by the manufacturer, Best Glove style 725R (PVC) offers excellent protection for up to 240 minutes of complete immersion.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE** : Liquid/Blue
- pH** : Not available
- BOILING POINT °C** : 64.6 at 760mmHg( Methanol)
- MELTING POINT C (F)** : Not available
- FLASH POINT C (F)** : Not available
- FLAMMABILITY** : Not established
- OXIDIZING PROPERTIES** : Not available
- VAPOR PRESSURE** : 100( Methanol)  
-mmHg 21.2 C
- VAPOR DENSITY:** : 1.11( Methanol)
- RELATIVE DENSITY, 15 C** : Not available
- SOLUBILITY IN WATER** : SOLUBLE
- EVAPORATION RATE** : Not established
- Pour Point, °C** : Not available
- FREEZING POINT °C** : WWAF -40:-40, WWAF-35:-35

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

## 10. OTHER HAZARD INFORMATION AND DEFINITION

- OSHA PEL** : The Occupational Safety and Health Administration's Permissible Exposure Limit, which is defined as the maximum concentration of contaminant to which a normal healthy individual may be exposed 8-hours per day, 40-hours per week, without experiencing adverse health effects over a working lifetime.
- ACGIH TLV** : American Conference of Governmental Industrial Hygienist's Threshold Limit Value, similar to the OSHA PEL but not considered a legal standard.

## 11. TRANSPORT INFORMATION

**DOT HAZARDOUS DESCRIPTION** : Flammable liquid n.o.s. (methanol)  
**MSDS Prepared by** : NEMCO RESOURCES LTD  
 Judgments as to the suitability herein for the user's

**In Inner Packaging No More Than 5.0 L:**

Proper Shipping Name: Consumer Commodity ORM-D  
 Per 49 CFR Part 173.10 (PG III, inner packaging no more than 5.0L)

**In Packaging Over 5.0 L:**

Proper Shipping Name: Flammable Liquid, n.o.s. (Methanol)  
 ID #: UN 1993  
 Class: 3  
 Hazard Label: Flammable Liquid  
 PG: III

**(IATA) International Air Dangerous Good Regulations:**

Proper Shipping Name: Flammable Liquid, n.o.s. (Methanol)  
 ID #: UN 1993  
 Class: 3  
 Hazard Label: Flammable Liquid  
 PG: III  
 Ltd. Qty. Packaging Instruction: Y309 (Max qty. per package 10L)  
 Special Provision: A3

## 12. OTHER INFORMATION

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Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user and WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. Nothing is intended as a recommendation for uses, which infringe valid patents, or as extending license under valid patents. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted. Nemco assumes no responsibility for accuracy of information unless the document is the most current available from an official Nemco distribution system. Nemco neither represents nor warrants that the format, content or product formulas contained in this document comply with the laws of any country except Canada.

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FOR FURTHER INFORMATION, CONTACT:

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