**Chemical Name:** Windshield Washer Fluid

**Manufacturer:** Autoguard

**Container size:** 1 gallon

**Location:** VLA

**Disposal:** Place empty container in trash.
# MATERIAL SAFETY DATA SHEET

**Warren Oil Company, Inc.**

**Address:** 2340 U.S. HWY 301 N.  
Dunn, NC 28335

**Phone:** (800) 779-6456

**Chemtrec Number:**  
Domestic: 800-424-9300  
International: 703-527-3887

## PRODUCT IDENTIFICATION

<table>
<thead>
<tr>
<th>Trade Name:</th>
<th>Autoguard -20 Windshield Washer Fluid</th>
<th>Date: September 12, 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms/Product Code:</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Chemical Name:</td>
<td>Methanol</td>
<td></td>
</tr>
<tr>
<td>DOT Hazard Class:</td>
<td>Consumer Commodity ORM-D per 49 CFR Part 173.10 (PG III, inner packaging no more than 5.0L) (55gl) Flammable Liquid, n.o.s. (Methanol)</td>
<td></td>
</tr>
<tr>
<td>ID #:</td>
<td>UN1993</td>
<td></td>
</tr>
<tr>
<td>Class:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Packing Group:</td>
<td>III</td>
<td></td>
</tr>
</tbody>
</table>

NFPA Codes: Health=1, Flammability=3, Reactivity=0

## PRODUCT/INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windshield Washer Fluid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>60-70 %Weight</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>30-40 %Weight</td>
</tr>
</tbody>
</table>

## PHYSICAL AND CHEMICAL PROPERTIES

- **Boiling Point:** 79°C @ 760 mmHg
- **Vapor Density:** 1
- **Flash Point:** 38°C
- **Specific Gravity:** 0.93-0.96
- **Density:** 0.934
- **Freezing Point:** -40°C
- **Stability:** Stable
- **Appearance:** Blue, clear liquid
- **Odor:** Alcohol odor
- **Chemical Formula:** H2O
- **Physical State:** Liquid
- **Odor Threshold:** Not Determined
- **Partition Coefficient:** Not Determined
- **pH:** 8-10.5

NFPA Rating (Health, Fire, Reactivity): 2, 3, 0

Hazard Rating: Least – 0  Slight – 1  Moderate – 2  High – 3  Extreme - 4

## FIRE AND EXPLOSION DATA
Flash Point (Method): 100.4°F/38°C
Upper Flammability Limit: Not Determined
Lower Flammability Limit: Not Determined

Extinguishing Media: Material will float and can be re-ignited on surface of water. Use water fog, “alcohol foam”, dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

Fire Fighting Instructions: CAUTION! COMBUSTIBLE! Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots, including a positive pressure, NIOSH approved, self-contained breathing apparatus. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons per minute flame impingement exposure) to prevent weakening of container structure.

REACTIVITY DATA
Stability: Stable under normal conditions.
Conditions to Avoid/Incompatibility: Avoid heat and open flames.
Hazardous Decomposition Products: Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Carbon monoxide, carbon dioxide, water vapor and other unidentified organic compounds may be formed upon combustion.

HEALTH HAZARD DATA
Carcinogenicity: NTP: No IARC: No ACGIH: No OSHA: No
Chemical Name: Windshield Washer Fluid

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
<th>OSHA Classification</th>
<th>Material Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal LDLo</td>
<td>&lt;1 g/kg(Monkey)</td>
<td>Toxic</td>
<td>Based on components</td>
</tr>
<tr>
<td>Inhalation LCLo</td>
<td>1000 ppmv(Monkey)</td>
<td>Toxic</td>
<td>Based on components</td>
</tr>
</tbody>
</table>

Developmental Toxicity: Offspring of pregnant rats and mice exposed by inhalation to methanol levels at or above 5000 ppm had reduced body weight, reduced survival, and malformations. In rats these effects occurred at maternally toxic exposure levels.

Neurotoxicity: Methanol ingestion can cause irreversible visual impairment or blindness.

Systemic Toxicity: Acute methanol toxicity in humans follows a well-defined pattern. Early symptoms of CND depression are followed by a latent period typically lasting 12-24 hours. Depending on the amount ingested, subsequent symptoms may include headaches, nausea and vomiting, severe abdominal pain and difficulty breathing. Blurred vision, photophobia (light avoidance), and pain in the eyes occurs at this time. The appearance of these symptoms coincides with an increasing acidosis due to accumulating formic acid. These ocular symptoms may during the next few days either recede or develop into visual impairment or
blindness. Coma and eventually death from respiratory failure can follow.

Route(s) of Exposure:

**Eyes:** Severely irritating to the eyes causing pain, redness, swelling and blurred vision.

**Skin:** May be irritating to the skin causing a burning sensation, redness and/or swelling. Toxic and is harmful if absorbed through the skin.

**Inhalation:** Breathing of high vapor concentrations may cause CNS depression, evidenced by dizziness, light-headedness, headache, nausea, drowsiness, and loss of coordination. Continued inhalation may result in unconsciousness.

**Ingestion:** Highly toxic and may be fatal if swallowed. May cause Central Nervous System (CNS) depression.

**Other Health Effects:** Refer to Section 11, Toxicological Information, for specific information on the following effects: Developmental Toxicity.

**Signs & Symptoms:** Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness and nausea. In extreme cases, unconsciousness and death may occur.

**EMERGENCY FIRST AID PROCEDURES**

**Eye Contact:** Immediately flush with large amounts of water for at least 30 minutes, by the clock, while holding eyelids open. Transport to nearest medical facility for additional treatment.

**Skin Contact:** Immediately remove contaminated clothing and shoes. Flush exposed area with water and follow by washing with soap, if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment. Transport to nearest medical facility for additional treatment.

**Inhalation:** If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

**Ingestion:** DO NOT take internally! Induce vomiting if exposed person is alert and call a doctor or poison control center. To induce vomiting, administer two glasses of water and two tablespoons of Syrup of Ipecac (one tablespoon if victim is a child). Keep head below hips while vomiting. DO NOT GIVE LIQUIDS TO A DROWSY, CONVULSING OR UNCONSCIOUS PERSON! Transport to nearest medical facility for additional treatment.

**SPECIAL PROTECTION INFORMATION**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Limit</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
<th>Notation</th>
</tr>
</thead>
</table>

Provide adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below:

**Eye Protection:**
Remove contact lenses. Wear chemical safety goggles or chemical goggles/face shield.

**Skin Protection:**
Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements. (Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by: Neoprene or Nitrile Rubber.

**Respiratory Protection:**
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include: For Vapors: Air Purifying, R or P style prefilter and organic cartridge. NIOSH approved respirator. Self-contained breathing apparatus for use in environments with unknown concentrations or emergency situations.

**ACCIDENTAL RELEASE MEASURES**

**Protective Measures:**
CAUTION! COMBUSTIBLE! HIGHLY TOXIC! Eliminate potential sources of ignition. Handling equipment must be bonded and grounded to prevent sparking.

Wear appropriate personal protection equipment when cleaning up spills. Refer to Section . Full protective clothing and self-contained breathing apparatus.

**Spill Management:**
Shut off source of leak, if safe to do so. Dike and contain spill. FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels. FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

**HANDLING AND STORAGE**

**Precautionary Measures:**
Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet. Launder contaminated clothing before reuse. Properly dispose of contaminated leather articles such as shoes or belts that cannot be decontaminated. CAUTION! DO NOT take internally. Do not taste or swallow. COMBUSTIBLE! Avoid heat, open flames, including pilot lights,
and strong oxidizing agents. Use explosion-proof ventilation to prevent vapor accumulation. Ground all handling equipment to prevent sparking. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Handling:
Surfaces that are sufficiently hot may ignite liquid material.

Storage Requirements:
Keep liquid and vapor away from heat, sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors has dissipated. Use explosion-proof ventilation indoors and in laboratory settings.

Container Warnings:
Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

SARA TITLE III INFORMATION

SARA Extremely Hazardous Substances (302/304):
METHANOL

SARA Hazard Categories (311/312):
<table>
<thead>
<tr>
<th>Immediate Health</th>
<th>Delayed Health</th>
<th>Fire</th>
<th>Pressure</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

SARA Toxic Release Inventory (TRI)(313):
METHANOL

Toxic Substances Control Act (TSCA) Status:
All component(s) of this material is(are) listed on the EPA/TSCA Inventory of Chemical Substances.

Other Chemical Inventories:
Component(s) of this material is(are) listed on the Australian AICS, Canadian DSL, Chinese Inventory, European EINECS, Korean Inventory, Philippines PICCS.

ECOLOGICAL INFORMATION

Environmental Impact Summary:
There is no ecological data available for this product.

DISPOSAL CONSIDERATIONS

RCRA Information:
If this material, as it is originally purchased, were subsequently DISCARDED as a waste, the waste would be a RCRA hazardous waste.D001 (Ignitable Hazardous Waste)

Under RCRA, it is the responsibility of the user of the material to determine, at the time of disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.

TRANSPORT INFORMATION

US Department of Transportation Classification:
Proper Shipping Name: Consumer Commodity ORM-D per 49 CFR Part 173.10 (PG III, inner packaging no more than 5.0L) (55GL) Flammable Liquid, Toxic, N.O.S. (Methanol)

Technical Name(s): Methanol
Identification Number: UN1993
Hazard Class/Division: 3 (Flammable Liquid)
Packing Group: III
Subsidiary Class: 6.1 (Poisonous Material)

Emergency Response Guide #131

International Air Transport Association:
Hazard Class/Division: 3 (Flammable Liquid)
Identification Number: UN1993
Packing Group: III
Proper Shipping Name: Flammable Liquid, Toxic, N.O.S. (Methanol)
Subsidiary Class: 6.1 (Poisonous Material)
Technical Name(s): Methanol

International Maritime Organization Classification:
Hazard Class/Division: 3 (Flammable Liquid)
Identification Number: UN1993
Packing Group: III
Proper Shipping Name: Flammable Liquid, Toxic, N.O.S. (Methanol)
Subsidiary Class: 6.1 (Poisonous Material)
Technical Name(s): Methanol

REGULATORY INFORMATION

Federal Regulatory Status

OSHA Classification:

WHMIS Classification: Class B2, Class D1B, Class D2A, Class D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Ozone Depleting Substances (40 CFR 82 Clean Air Act):
This material does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

State Regulation

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

New Jersey Right-to-Know Chemical List:
- Methanol (67-56-1) 40-50 %weight Environmental Hazard
- Methanol (67-56-1) 40-50 %weight Special Hazard

Pennsylvania Right-to-Know Chemical List:
- Methanol (67-56-1) 40-50 %weight Environmental Hazard