

**MSDS - Material Safety Data Sheet****Product Name: WINDSHIELD WASHER SOLVENT WITH ANTI-FREEZE****MSDS No.: M549****I. Basic Information:****Manufacturer:** RADIATOR SPECIALTY COMPANY**Address:** 600 RADIATOR ROAD**City, ST Zip:** INDIAN TRAIL, NC 28079**Country:****Contact:** Robert Geer**Information Telephone Number:** 704-684--181 1**Emergency Contact:** Rocky Mountain Poison and Drug Center**Emergency Telephone Number:** 303-623-5716**Emergency Restrictions:****Product Name:** WINDSHIELD WASHER SOLVENT WITH ANTI-FREEZE**MSDS No.:** M549**Issue Date:** 06/29/2010**Supersedes Date:** 10/01/2008**II. Hazards Identification:****EMERGENCY OVERVIEW**

Danger: Poison, Vapor Harmful, Flammable. May be Fatal or cause Blindness if Swallowed. Eye and skin irritant.

Cannot be made nonpoisonous.

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Potential Health Effects****Route(s) of Entry:**

Absorption, Inhalation, and Ingestion.

**Health Hazards (Acute and Chronic):**

See signs and symptoms below

**Signs and Symptoms:**

Eye Contact: Can irritate the eyes and cause blurred vision and/or blindness.

Skin Contact: Irritant. Defatting of tissue, dermatitis may occur.

Inhalation: Irritant to mucous membranes. Repeated exposure may cause narcosis, dizziness and death

Ingestion: HARMFUL OR FATAL IF SWALLOWED.

Methanol may damage the liver and nervous system.

**Medical Conditions Generally Aggravated by Exposure:**

None Known

**Other Health Warnings:**

Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

**Potential Environmental Effects**

Not Available

**III. Composition/Information on Ingredients:**

Chemical Name	CAS No.	% Range	Trade Secret
Ammonium hydroxide	1336-21-6	0.1 - 1.0	
Methanol	67-56-1	60.0 - 100.0	
Tripropylene Glycol Monomethyl Ether	25498-49-1	1.0 - 5.0	

**IV. First Aid Measures:****Emergency and First Aid Procedures:**

Eye Contact: Flush eyes with clean water for 15 minutes while lifting eyelids and get prompt medical attention.

Skin Contact: Wash with soap and water thoroughly. If adverse effects persist, get prompt medical attention. Launder contaminated clothing before reuse.

Inhalation: Remove to fresh air. If breathing becomes difficult get prompt medical attention.

Ingestion: DO NOT INDUCE VOMITING! Call Poison Control Center, physician, or hospital emergency room immediately.

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**Note to Physicians:**

N/D

### ***V. Fire Fighting Measures:***

**Suitable Extinguishing Media:**

Carbon Dioxide, dry chemical or water in large volumes.

**Unsuitable Extinguishing Media:**

Not determined

**Products of Combustion:**

Normal products of combustion, smoke, carbon dioxide, carbon monoxide.

**Protection of Firefighters:**

Wear self-contained positive pressure breathing apparatus and protective clothes.

### ***VI. Accidental Release Measures:***

**Personal Precautions:**

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

**Environmental Precautions:**

Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred. Run off to sewer may create fire or explosion hazard.

**Methods for Containment:**

Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rags, etc).

**Methods for Cleanup:**

Using a non-metallic scoop, place contaminated material into an approved chemical waste container. Where possible, vacuum spilled liquid using an explosion proof vacuum to recover material.

**Other Information:**

Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

### ***VII. Handling and Storage:***

**Handling Precautions:**

Use with adequate ventilation and proper protective equipment, safety glasses, gloves and apron. Do not use or store near fire, sparks, or open flame. Store at temperatures below 120° away from oxidizers and acids. Keep container tightly closed when not being used. Use a ground strap when transferring material to another container.

**Storage Precautions:**

Do not use in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS! Danger: Flammable.

### ***VIII. Exposure Controls/Personal Protection:***

<b>Chemical Name</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>Other Limits</b>
Methanol	200 PPM	200 PPM	Not Available
Ammonium hydroxide	50 ppm (TWA)	25 ppm	Not Available
Tripropylene Glycol Monomethyl Ether	N/E	N/E	Not Available

**Engineering Controls:**

See Section above for applicable exposure limits. Use with adequate ventilation. If TLV is exceeded, wear NIOSH approved respirator.

**Personal Protective Equipment:**

Wear protective safety glasses, gloves, and apron.

**MSDS - Material Safety Data Sheet****Product Name: WINDSHIELD WASHER SOLVENT WITH ANTI-FREEZE****MSDS No.: M549****IX. Physical and Chemical Properties:****Boiling Point:** 147°F**Boiling Range:** Not Available**Solubility In Water:** Insoluble**Flash Point:** 57°F**Odor Threshold:** Not Available**Vapor Density (AIR = 1):** >1**pH Range:** Not Available**Decomposition Temp:** Not Available**Lower Explosive Limit:** 6.0%**Specific Gravity (H2O = 1):** 0.87**Other Information:** N/D**Melting Point:** N/A**Freezing Point:** Not Available**Evaporation Rate (Butyl Acetate = 1):** >2.0**Flash Point Method:** TCC**Appearance and Odor:** Clear blue liquid with alcohol/ammonia odor**Vapor Pressure (mm Hg.):** 97.25**Partition Coefficient:** Not Available**Auto-Ignition Temp:** Not Available**Upper Explosive Limit:** 36.0%**X. Stability and Reactivity:****Stability:**

Product is stable

**Conditions to Avoid:**

See Incompatible Materials below.

**Incompatible Materials:**

Avoid contact with strong oxidizers and acids, and ignition sources.

**Hazardous Decomposition Products:**

Normal products of combustion, smoke, carbon dioxide, carbon monoxide.

**Possibility of Hazardous Reactions:**

Will not occur

**XI. Toxicological Information:**

LC50: 64000 ppm/4 hours inhalation-rat

LD50: 5628 mg/kg oral-rat

15800 mg/kg skin-rabbit

**XII. Ecological Information:**

N/D

**XIII. Disposal Considerations:**

DISPOSAL: This container may be recycled in a recycling centers when empty. Before offering for recycling, empty the can or bottle by using the product according to the label. If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with all local, state government and federal laws and regulations

**XIV. Transport Information:****Shipping Name:** Methanol**DOT Hazard Class:** Not Available**UN/NA#:** Not Available**Transportation Information:****DOT Subsidiary Hazard Class:** Not Available**Packing Group:** Not Available

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Shipping name: Methanol  
 Class: 3  
 Packaging group: II  
 UN number: 1230

The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for all shipping purposes.

ICAO/IATA (US)  
 Shipping name: Methanol  
 Class: 3 (6.1)  
 Packaging group: II  
 UN number: 1230

International:  
 ICAO/IATA  
 UN number: 1230  
 Shipping name: Methanol  
 Class: 3 (6.1)  
 Packaging group: II

IMDG  
 UN number: 1230  
 Shipping name: Methanol  
 Class: 3 (6.1)  
 Packaging group: II  
 EMS: F-E, S-D

**XV. Regulatory Information:**

SARA 313 Reportable Chemical:  
 Methanol 67-56-1  
 Ammonium Hydroxide 1336-21-6

USA TSCA: All components of this material are either exempt or listed on the US TSCA Inventory.

State RTK  
 Methanol 67-56-1  
 Ammonium Hydroxide 1336-21-6

**XVI. Other Information:**

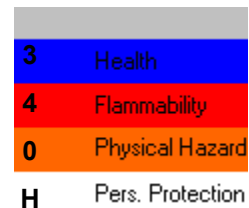
**Chemical State:**     Liquid     Gas     Solid  
**Chemical Type:**     Pure     Mixture  
**Hazard Category:**  
 Acute     Chronic     Fire  
 Pressure     Reactive



**Additional Manufacturer Warnings:**

Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

N/E: Not Established  
 N/D: Not Determined  
 N/A: Not Applicable  
 N/AV: Not Available



**Additional Product Information:**

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.