

TITAN™ Antifreeze & Coolant Prediluted 50/50
Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY INFORMATION

Product Name: TITAN™ Antifreeze & Coolant Prediluted 50/50

Product Form: Mixture

Intended Use of Product: Engine Antifreeze and Coolant

Company Identification:

Waterford Oil, CO., Inc.

Address: PO Box 508, 1500 Riverview Drive, Northfield MN, 55057

Phone: 507-645-5659

Website : www.waterfordoil.com

Emergency Telephone Number: 1-800-633-8253

SECTION 2: HAZARDS IDENTIFICATION

GHS-US Classification: Acute Toxicity (oral, inhalation), Category 4
Specific Target Organ (kidney) Toxicity - Repeated exposure, categories 1,2

Hazard Pictograms (GHS-US):



GHS07

GHS08

Signal Word (GHS-US): Warning

Hazard Statements (GHS-US): H302: Harmful if swallowed

H373: May cause damage to organs (kidneys) through prolonged or repeated exposure

Precautionary Statements (GHS-US): P201: Obtain special instructions before use

P202: Do not handle until all safety precautions have been read and understood

P260: Do not breathe mist, spray, or vapors

P264: Wash affected areas thoroughly after handling

P280: Wear personal protective equipment as required

P301+P310: If swallowed: Immediately call doctor/physician or poison center

P301+P330+P331: If swallowed: Rinse mouth. Do NOT induce vomiting

P304+P340: If inhaled: Remove person to fresh air and keep comfortable for breathing



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P308+P313: If exposed or concerned: Get medical advice/attention
 P405: Store locked up
 P501: Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national regulations

Other Hazards: No additional information

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product	CAS No	Percent by Weight	GHS-US Classification
Ethylene Glycol	107-21-1	< 50	Acute Tox. 4 (Oral), H302
Water	7732-18-5	< 50	Not Classified
Proprietary Inhibitors	Not Applicable	< 3	Not Applicable
Diethylene Glycol	111-46-6	< 2	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General first aid measures: Never give anything by mouth to an unconscious person. If you feel sick, seek medical advice

First aid measures after inhalation: If breathing is difficult, remove person to fresh air and keep at rest in a comfortable position for breathing. Seek immediate medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

First aid measures after eye contact: Remove contact lenses, if present. Rinse immediately with water for as long as necessary. Lift lower and upper eye lids. Continue rinsing. If eye irritation persists, seek medical attention.

First aid measures after skin contact: Remove contaminated clothing. Wash with soap and water. Was contaminated clothing before reuse. If skin irritation persists, seek medical attention.

First aid measures after ingestion: Seek emergency medical attention or call poison center immediately. Rinse mouth. If person is fully conscious, have person drink plenty of water (two glasses). Never give anything by mouth to an unconscious person. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Eye: Can cause serious eye damage
 Skin: Can cause skin irritation



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Ingestion: Swallowing even a small quantity of product can result in serious health hazard (damage to kidneys and potentially fatal)

Indication of any immediate medical attention and special treatment needed: Not Applicable

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media: Use water fog, fine water spray, AFFF foam, alcohol-resistant foam, carbon dioxide, dry chemical powder or sand. Do NOT use a heavy water stream as this may spread fire.

Protection of Fire Fighters: Do NOT enter any enclosed or confined fire space without proper protective equipment, including, but not limited to, self-contained breathing apparatus and protective fire fighting clothing. Use water spray or fog for cooling exposed containers. Exercise caution.

Combustion Products: Highly dependent on combustion conditions. A mixture of airborne solids, liquids and gases, including, but not limited to, carbon monoxide and carbon dioxide may evolve during combustion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Protective Measures: Evacuate all unnecessary personnel. Equip clean-up crew with appropriate protection (refer to Section 8). Ventilate area.

Spill Management: Stop source of the release and contain release to prevent further contamination of soil, surface water or groundwater, if possible without risk. Prevent entry to sewers and public waters. Notify the appropriate authorities if release enters sewers or public waters. Clean up release as soon as possible while observing precautions outlined in Section 8. Soak up release with inert solids, such as clay or diatomaceous earth. Where appropriate, remove contaminated soil and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to appropriate authorities.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children and animals. Do NOT taste or swallow mixture. Do NOT get in eyes, on skin or on clothing. Do NOT breathe in vapors or fumes. Wash hands and other exposed areas with soap and water after handling. Do NOT eat or drink when handling mixture. Provide good ventilation in process area.

Conditions for safe storage: Keep in the original container in a cool, well ventilated area. Keep containers (including empty, non-reconditioned containers) away from heat sources. Keep containers closed when not in use. Product may become solid at temperatures below -34 degrees Fahrenheit (-37 degrees Celsius). Do NOT store near food, drugs or potable water sources. Never pressurize container. Keep away from strong acids,



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strong bases and oxidizing agents. Do NOT store mixture in unlabeled or open containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Controls: Consider potential hazards and follow safe handling procedures set forth within this Safety Data Sheet when designing engineering controls.

Personal Protective Equipment

General: Avoid all unnecessary exposure.
 Eye/Face Protection: No special protection typically required. However, where splashing is possible, wear safety glasses or chemical goggles.
 Hand Protection: No special protection typically required. However, where splashing is possible, wear protective gloves.
 Skin Protection: No special protection typically required. However, where splashing is possible, wear protective clothing.
 Respiratory Protection: If exposed to levels above exposure limits, wear appropriate respiratory protection.

Occupational Exposure Limits:

Component	Agency	Ceiling
Ethylene Glycol	USA ACGIH	100 mg/m ³

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
 Color: Green
 Odor: Mild
 Odor Threshold: No Data Available
 pH: 10.2 - 10.8
 Freezing Point: -34°F (-37°C)
 Boiling Point: 226°F (108°C)
 Flash Point: 241°F (116°C) [100% Ethylene Glycol] *ASTM D56*
 Auto-Ignition Temperature: 752°F (400°C) [100% Ethylene Glycol] *Literature*
 Decomposition Temperature: No Data Available
 Flammability (solid, gas): No Data Available
 Vapor Pressure: 0.12 mmHg (Typical) @ 68°F (20°C)
 Relative Vapor Pressure: No Data Available
 Specific Gravity: 1.052 - 1.084
 Viscosity: No Data Available



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Explosive Properties: No Data Available
Water Solubility: Complete (100%)
Volatile Organic Compounds (VOC): 0.00%

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No dangerous reactions known under normal conditions of use. May react with strong acids, strong bases or strong oxidizing agents.

Chemical Stability: Stable under normal conditions of use.

Incompatible Materials: Keep away from strong acids, strong bases and oxidizing agents.

Hazardous Decomposition Products: Incomplete combustion may produce carbon monoxide and/or carbon dioxide. Alcohols. Aldehydes. Ethers.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Keep away from flame/heat sources. Extreme high or low temperatures.

SECTION 11: TOXICOLOGICAL INFORMATION

Serious Eye Damage/Irritation: Not classified. Believed to cause slight eye irritation. Serious eye damage may be possible with prolonged contact.

Skin Corrosion/Irritation: Not classified. Can be irritating to skin.

Skin Sensitization: Not classified.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for product components.

Acute Oral Toxicity: Can cause irritation to mouth, throat and stomach.

Acute Inhalation Toxicity: Drowsiness, narcosis and unconsciousness possible upon exposure to high concentrations in poorly ventilated confined spaces.

Acute Toxicity Estimate: Not determined.

Germ Cell Mutagenicity: Not mutagenic.

Carcinogenicity: Not listed by IARC, NTD or OSHA.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity
- Single Exposure: Not classified. See Additional Toxicology Information below.

Specific Target Organ Toxicity
- Repeated Exposure: May cause damage to organs through prolonged or repeated exposure. See Additional Toxicology Information below.

Additional Toxicology Information: This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may



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resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty in breathing and decreased urine output. When EG was heated above the boiling point of water, vapors formed which reportedly caused unconsciousness, increased lymphocyte count, and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from products of a similar structure and composition.
Mobility:	No data available.
Persistence and Degradability:	This material is expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material. The product has not been tested. The statement has been derived from the properties of the individual components.
Potential to Bioaccumulate:	Low potential for bioaccumulation.
Bioconcentration Factor:	No data available.
Octanol/Water Partition Coefficient:	No data available
Other Adverse Effects:	No known effect on the ozone layer. Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Use material for intended purposes. Dispose in accordance with applicable federal, state, and local regulations. Contact local or state agencies to obtain information on recycling.

SECTION 14: TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

In accordance with DOT

Transport document description:	UN3082 Environmentally Hazardous Substances, Liquid, N.O.S., 9, III
UN-No. (DOT):	3082
DOT NA No.:	UN3082
Proper Shipping Name (DOT):	Environmentally Hazardous Substances, Liquid, N.O.S.
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DOT Hazard Classes: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
 Packing Group: III
 Additional Information: Bulk shipments containing a reportable quantity (RQ, 5000 pounds or more) of ethylene glycol in a single packaging are transported as hazardous material.

IMO/IMDG Shipping Description: Not regulated as dangerous goods for transport under the IMDG code.

ICAO/IATA Shipping Description: Anti-freeze Preparations, Proprietary; Not regulated as dangerous goods for transport under the ICAO.
 Transport in bulk according to Annex II of MARPOL 73/78 and the

IBC code: Not applicable

SECTION 15: REGULATORY INFORMATION

TSCA Inventory: Listed
 Water Standards: No Data Available
 CERCLA: Reportable Quantity (RQ): 5,000 pounds
 OSHA: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200
 SARA Title III: Section 311/312 - Categories: Acute hazard; Chronic hazard
 Section 312 - Inventory Reporting: Ethylene glycol is subject to Tier I and/or Tier II annual inventory reporting.
 Section 313 - Emission Reporting: Ethylene glycol is subject to Form R reporting requirements.
 Section 302 - Extremely Hazardous Substances: Ethylene glycol is not listed.

EINECS: Information Not Available.
 State Regulations: Consult state regulatory agencies to determine specific regulations that might apply to this product.

SECTION 16: OTHER INFORMATION

Full Text of H-phrases

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
STOT RE 2	Specific target organ toxicity - Repeated exposure, Category 3
H302	Harmful if swallowed
H373	May cause damage to organs through prolonged or repeated exposure



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NFPA Health Hazard:	1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA Fire Hazard:	1 - Must be preheated before ignition can occur.
NFPA Reactivity:	0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS Rating	
Health:	2 Moderate Hazard - Temporary or minor injury may occur
Flammability:	1 Slight Hazard
Physical:	0 Minimal Hazard
Personal Protection:	B

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