Great Western Glycol
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SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product/Chemical Name:	Clear Choice GoldPlus™ Clear Choice NT™ Clear Choice XL™ Heavy Duty NT™ Heavy Duty XL™
Product Description/ Recommended Use:	Precharged Premix Antifreeze
Chemical Family:	Ethylene Glycol Solution
Manufacturer:	Great Western Glycol 9009 Quince St, Unit C Henderson, CO 80640 303-227-9900 EMERGENCY 800-633-8253

SECTION 2 - HAZARD IDENTIFICATION

Classification:	Acute Oral Toxicity, Category 4 Specific Target Organ Toxicity (Repeated Exposure) - Category 2
Signal Word:	Warning
Pictogram(s):	
Hazard Statement(s):	H302 Harmful if swallowed. H373 May cause damage to organs through prolonged or repeated exposure. Kidney.
Precautionary Statement(s):	Prevention: P260 Do not breathe mist / vapors / spray. P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. Response: P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. P314 Get medical advice/attention if you feel unwell. Disposal: P501 Dispose of contents/container in accordance with local/ regional/ national/ international regulations.
Primary route(s) of Exposure:	Eye, Skin, Inhalation, Ingestion
Eye Contact:	May cause minimal irritation, experienced as temporary discomfort. Vapors may be irritating.
Skin Contact:	Brief contact is not irritating. Prolonged contact, as with clothing wetted with material may cause defatting of skin or irritation, seen as local redness with possible mild discomfort. Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact.

Ingestion:	Contains ethylene glycol and/or diethylene glycol, which are toxic when swallowed. A lethal dose for an adult is 1-2 ml per kilogram, or about 4 ounces (one-half cup). Symptoms include headache, weakness, confusion, dizziness, staggering, slurred speech, loss of concentration, faintness, nausea and vomiting, increased heart rate, decreased blood pressure, difficulty breathing and seeing, pulmonary edema, unconsciousness, convulsions, collapse and coma. Symptoms may be delayed. Decreased urine output and kidney failure may also occur. Severe poisoning may cause death. Aspiration may occur during swallowing or vomiting, resulting in lung damage.
Inhalation:	Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness. Prolonged or repeated overexposure may result in the absorption of potentially harmful amounts of material.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO	WT. RANGE %
*1,2-ethanediol (Ethylene Glycol)	107-21-1	46-51%
Diethlyene glycol	11-46-6	0-3%
Proprietary Additives and Inhibitors	Not applicable	1-5%
Dye	Not applicable	<1%
Water	7732-18-5	Balance

*Hazardous according to OSHA (1910.1200) or one or more state Right-to-Know lists.
Specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 – FIRST AID MEASURES

Eyes:	Immediately flush with large quantities of water for at least 15 minutes. Call a Physician.
Skin:	Remove excess with cloth or paper towel. Wash thoroughly with soap and water. If irritation persists, get medical attention.
Ingestion:	Immediately contact a physician, poison control center or emergency treatment center. DO NOT induce vomiting. Aspiration Hazard: Product may be inhaled into lungs if vomited.
Inhalation:	Remove to fresh air. Restore and/or support breathing as required. Keep victim warm and at rest. Call a Physician.
Note to Physician:	No specific antidote is known. Based on the individual reactions of the patient, the Physician's judgment should be used to control symptoms and clinical condition.
Caution:	If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Based on the NFPA guide, use dry chemical, alcohol foam, carbon dioxide or extinguishing agent suitable for Class B fires. Use water to cool containers exposed to fire. For large fires, use water spray or fog, thoroughly drenching the burning material.
Specific Fire Hazards (Hazardous Combustion Products):	In the event of combustion CO, CO2 may be formed. Do not breathe smoke or fumes.

Special Protective Equipment/ Precautions for Firefighters:	Wear suitable protective equipment. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions/ Protective Equipment/ Emergency Procedures:	Ventilate area. Clear area of all unprotected personnel. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection to prevent skin and eye contact and breathing in vapors. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. If contamination of sewers or waterways has occurred advise local emergency services.
Methods and Materials for Containment/ Clean Up:	Slippery when spilt. Avoid accidents, clean up immediately. Work upwind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

SECTION 7 – HANDLING AND STORAGE

Precautions for Safe Handling:	Avoid skin and eye contact and breathing in vapor. Keep out of reach of children.
Conditions for Safe Storage and Incompatibility:	Store in a cool, dry, well ventilated place and out of direct sunlight. Periods of exposure to high temperature should be minimized. Water contamination should be avoided. Store away from foodstuffs. Keep containers closed when not in use - check regularly for leaks. Keep containers away from open flames. Avoid contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorates, and concentrated oxygen, permanganates, which can generate heat, fires, explosions and the release of toxic fumes.)

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:	Ethylene glycol (aerosol) = 120 mg/m3 (ceiling) ACGIH
Appropriate Engineering Controls:	Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Vapor heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapor may have collected. Keep containers closed when not in use.
Personal Protective Equipment (PPE)	The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors. Protective gloves and goggles must be used if there is a risk of direct contact or splash. Wear tight-fitting goggles or face shield. Wear apron or protective clothing in case of contact. Wash contaminated clothing before reuse. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Respiratory protection is not normally needed. If significant mists or aerosols are generated, wear a NIOSH approved or equivalent respirator.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Liquid (may contain dye in one of several colors).
Odor:	Aromatic
Odor Threshold:	Not determined
pH:	9-11

Melting Point/ Freezing Point:	-34 ºF
Initial Boiling Point:	225 ºF
Flash Point:	Not determined (> 261 ºF for 100% Elthylene Glycol)
Evaporation Rate:	Not determined
Upper/ Lower Flammability Limits:	Not determined/ Not determined
Specific Gravity (Water=1):	1.110 -1.125
Vapor Pressure (at 20 ºC):	18 mm Hg
Vapor Density (Air=1):	1.8
Relative Density:	8.82 lbs./gallon
Solubility:	Completely Soluble in Water
Partition Coefficient:	Not determined
Auto-Ignition Temperature:	Not determined
Decomposition Temperature:	> 775 ºF
Viscosity:	< 20 cst
NOTE:	These physical properties are typical values for this product.

SECTION 10 – STABILITY AND REACTIVITY

Reactivity/ Chemical Stability:	Stable
Possibility of Hazardous Reactions:	Normally unreactive, but try to avoid strong oxidizers, strong acids and strong bases at high temperatures.
Conditions to Avoid:	High temperatures above 413ºC (775ºF) (product can decompose)
Incompatible Materials:	Strong oxidizers.
Hazardous Decomposition Products:	In the event of combustion CO, CO2 may be formed.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure:	Skin/Eye Ingestion Inhalation
Symptoms of Exposure:	Acute: Slight eye irritation and can be irritating to skin upon prolonged contact. Inhalation of high concentrations of ethylene glycol can cause giddiness, headaches, dizziness vomiting, nausea, stupor or unconsciousness. Kidney damage may be noted by changes in urinary output. Liver damage may be noticed by yellow skin color. Aggravation of Existing Conditions: Individuals with pre-existing kidney or liver damage may experience a worsening of effects from ethylene glycol ingestion.
Acute Toxicity Studies:	Acute toxicity studies have not been conducted on this product, but toxicity studies of the ingredient(s) in Section 3 have been reviewed. The results are shown below.
Acute Oral Toxicity (Albino Rats):	Ethylene glycol LD50=6 g/kg.
Acute Dermal Toxicity (Albino Rabbits):	Ethylene glycol LD50=9.5 ml/kg.
Acute Inhalation Toxicity (Albino Rats):	Ethylene glycol LC50=0/8 deaths after 8 hours exposure in saturated air.
Other Toxicity Results:	Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when administered by gavage or in drinking water at high concentrations.

Chronic Toxicity Results:	Ethylene glycol: Two chronic feeding studies, using rats and mice, have not shown any evidence that the chemical causes dose-related increases in tumor incidence, or a different pattern of tumors compared to untreated controls. The absence of carcinogenic potential for ethylene glycol has been supported by numerous in vitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects.
Carcinogenicity:	NTP: Not Listed IARC: Not Listed OSHA: Not Listed ACGIH: Not Listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecoxicity:	Oral: Believed to be 4.7-8.5 g/kg (rat); moderately toxic Inhalation: Not determined. Dermal: Believed to be 1-3 g/kg (rabbit); slightly toxic Other: Not determined. Irritation Index/Estimation of Irritation (Species) Skin: Believed to be 0.5-1.8/8.0 (rabbit); slightly irritating Eyes: Believed to be 15-25/110 (rabbit); slightly irritating
Persistence and Degradability:	Not determined.
Bioaccumulative Potential:	Not determined.
Mobility in Soil:	Not determined.
Other Adverse Effects:	Not determined.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal:	If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristic of Subpart C (i.e. D001 through D017) nor is it listed under Subpart D. However, under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. This is because product uses transformations, mixture, processes, etc., may render the resulting material hazardous. As a non-hazardous liquid waste, it should be solidified before disposal to a sanitary landfill. Can be incinerated in accordance with local, state and federal regulation.

SECTION 14 – TRANSPORT INFORMATION

DOT Proper Shipping Name:	Not regulated unless shipping container holds at least 5,000 lbs. (~535 gal.).
Shipping Symbols:	Not applicable
Hazard Class:	Not applicable
UN Number:	Not regulated unless shipping container holds at least 5,000 lbs. (~535 gal.).
Packing Group:	Not applicable
Label:	Not applicable
Special Provisions (172.102):	Not applicable
Bulk Shipments	
DOT Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)
UN Number:	UN 3082
Label Requirement:	Class 9, UN 3082

SECTION 15 – REGULATORY INFORMATION

Federal Regulations:

OSHA's Hazard Communication Rule, 29 CFR 1910.1200:	Based on our hazard evaluation, the following ingredient in this product is hazardous: Ethylene Glycol - systemic effects, possible birth defects based on tests with laboratory animals.
Toxic Substances Control Act (TSCA):	The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).
Resource Conservation and Recovery Act (RCRA), 40 CFR 261 Subpart C & D:	Unused product is not classified as a hazardous waste by RCRA criteria If this product becomes a waste, it does not meet the criteria of a hazardous waste, unless mixed with other hazardous constituents.
Federal Water Pollution Control Act, Clean Water Act, 40 CFR 401.15	This product may contain the following ingredients covered by the Clean Water Act: Sodium Nitrite (Section 311) Benzoic Acid (Section 311) Potassium Hydroxide (Section 311)
Clean Air Act, 40 CFR 60, Section 111, 40 CFR 61, Section 112:	This product contains the following ingredients covered by the Clean Air Act: Ethylene Glycol (Section 111)
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) 40 CFR 117, 302:	This product contains Ethylene Glycol, a Reportable Quantity (RQ) substance if 5,000 pounds of product are released; Benzoic Acid, a Reportable Quantity (RQ) substance if 5,000 pounds of product are released; Potassium Hydroxide, a Reportable Quantity (RQ) substance if 1,000 pounds of product are released and Sodium Nitrite, a Reportable Quantity (RQ) substance and if 100 pounds of product are released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D.C. (1-800-424-8802).
Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III -Section 302, 311, 312, and 313:	Section 302-Extremely Hazardous Substances (40 CFR 355); This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance. Sections 311 AND 312-Material Safety Data Sheet Requirements (40 CFR 370); Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories: XX Immediate (acute) health hazard XX Delayed (chronic) health hazard -- Fire Hazard -- Sudden release of pressure hazard -- Reactive hazard Section 311, submittal of MSDS's or a list of product names to the local emergency planning commission, state emergency response commission and local fire departments is required after October 17, 1987 if you have: -10,000 pounds or more of a hazardous substance, or -500 pounds or the threshold planning quantity, whichever is less, of an extremely hazardous substance.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III -Section 313- List of Toxic Chemicals (40CFR 372):	This product contains the following ingredient(s) (with CAS # and % range) which appear(s) on the List of Toxic chemicals:		
	Ethylene glycol	107-21-1	40+

State Regulations:

California Proposition 65:	None of the chemicals on the current Proposition 65 list are known to be present in this product.
Michigan Critical Materials:	This Product does not contain ingredients listed on the Michigan Critical Materials Register.
State Right to Know Laws:	Regulated in those states using the TLV for ethylene glycol as a criteria for listing.

SECTION 16 – OTHER INFORMATION

Date of Preparation: June 1, 2007

Date of Revision: May 1, 2015

HMIS Rating:

2	Health
1	Flammability
0	Reactivity
0	Special

This product Material Safety Data Sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

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