101

MATERIAL SAFETY DATA SHEET
APPROVED BY U.S. LABOR DEPT., ESSENTIALLY SIMILAR TO FORM OSHA 174

#201

PRODUCT IDENTITY: CARQUEST® ANTIFREEZE & COOLANT

#202

I. SUPPLIER

OLD WORLD AUTOMOTIVE PRODUCTS, INC.
NINE NORTH BROADWAY
DES PLAINES, IL. 60016
PHONE: (708) 699-2000
CHEMTREX PHONE: 1-800-424-9300

II. HAZARDOUS INGREDIENTS

MATERIAL	CAS#	% BY WT		PEL	(OSHA) TLV (ACGIH)
Ethylene Glycol	107-21-1	90 - 95	None	Known	*50 ppm
Diethylene Glycol	111-46-6	0 - 5	None	Known	25ppm *(ceiling limit)
LOWEST KNOWN LD50 (ORAL)	107-21-1			5840 mg/kg (Rats)	
LOWEST KNOWN LD50 (SKIN)	107-21-1			9530 mg/kg (Rabbits)	

HAZARD RATING

HEALTH (NFPA): 1 HEALTH (HMIS): 1 FLAMMABILITY: 1 REACTIVITY: 0 THIS PRODUCT IS LISTED IN THE TSCA INVENTORY

DOT SHIPPING NAME: None (UNOOO)

DOT LABEL: None

III. PHYSICAL DATA

BOILING RANGE:	171 203 203*C/339 398 398*F (*=End Point)
API GRAVITY:	Not Applicable
SPECIFIC GRAVITY (Water=1):	1.12
POUNDS/GALLONS:	9.3
VAPOR PRESSURE (mm OF Hg)@20C:	0.4
VAPOR DENSITY (air = 1):	2.1
WATER ABSORPTION:	Appreciable
ACID ABSORPTION (85% H2SO4):	Appreciable
DRY TIME (Ether = 1):	Long
% VOLATILE BY VOLUME:	97.0
APPEARANCE:	Green
ODOR:	Mild
REFRACTIVE INDEX:	1.431

IV. FIRE & EXPLOSION HAZARDS

AUTO IGNITION TEMPERATURE:	750°F
FLASH POINT (TEST METHOD):	118°C/245°F (TCC) (Lowest Component)
LOWER FLAMABLE LIMIT IN AIR (% by volume):	1.5 (Lowest Component)
FLAMMABILITY CLASSIFICATION:	Class IIIB
FIRE EXTINGUISHING MEDIA:	NFPA Class B extinguishers. For class III B liquid fire (Dry Chemical, Foam, or Carbon Dioxide (co2))
SPECIAL FIRE FIGHTING PROCEDURES:	Water spray may be ineffective on fire but can protect fire fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots). Use a NIOSH approved positive-pressure self-contained breathing apparatus. Keep container tightly closed. Isolate from oxidizers, heat & open flame.
UNUSUAL EXPLOSION & FIRE PROCEDURES:	Closed containers may explode if exposed to extreme heat. Applying to hot surface requires special precautions. Empty container very hazardous! Follow all label precautions!

V. REACTIVITY DATA

STABILITY:	Stable
CONDITIONS TO AVOID:	Isolate from oxidizers, heat & open flame.
MATERIALS TO AVOID:	Isolate from strong oxidizers such as permanganates, chromates & peroxides.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon Monoxide, Carbon Dioxide from burning.
CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:	Material is not known to polymerize.

VI. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:	50 ppm (Ceiling Value)
PREVENTION OF OVEREXPOSURE:	Avoid prolonged or repeated breathing of vapor or spray mist. Do not get in eyes, on skin or clothing. Do not take internally. ORGANIC EFFECTS: EYE & SKIN
CONTACT: OF ACCUTE OVER- EXPOSURE:	Primary irritation to skin, deffating, dermatitis. Primary irritation to eyes, redness, tearing blurred vision. Absorption thru skin increases exposure. SWALLOWING: Harmful or fatal if swallowed, swallowing may cause abdominal irritation, nausea, vomiting and diarrhea.
ORGANIC EFFECTS: EYE & SKIN CONTACT: OF CHRONIC OVER- EXPOSURE:	Liquid causes eye irritation. Wash thoroughly after handling.
CANCER HAZARD:	This product has no carcinogens listed by IARC, NTP,NIOSH, OSHA, or ACGIH, as of this date, GREATER OR EQUAL TO 0.1%
EMERGENCY & FIRST AID PROCEDURES:	In case of contact with skin, flush with plenty of water. For eyes, flush with plenty of water for 15 minutes & get medical attention. After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped give artificial respiration. If swallowed, CALL A PHYSCIAN IMMEDIATLEY! Induce vomiting promptly following physcian's instructions or by having patient stick finger down throat. Never give anything by mouth to an unconscious person.

VII. SAFE HANDLING & USE PRECAUTIONS

SPILL OR LEAK PROCEDURES:	**Small;** Mop up with absorbent material & transfer to hood. **Large;** Isolate from oxidizers, heat & open flame. Persons without proper protection should be kept from an area until cleaned up.
WASTE DISPOSAL METHOD:	**Small;** evaporate until all vapors are gone. Dispose of remainder by legally applicable methods. **Large;** Recycle or incinerate observing local, state & Federal health, safety & pollution.
OTHER PRECAUTIONS:	Store large amounts in structures made for OSHA Class OTHER liquids. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, braze or weld Empty container very hazardous! Follow all label precautions!

VIII. CONTROL MEASURES

RESPIRATORY PROTECTIONS:	Ventilate to keep air below 45 ppm. If over TLV, in accordance with 29 CFR 1910.134, (SPECIFIC TYPE): use a NIOSH approved positive-pressure self-contained breathing apparatus.
VENTILATION:LOCALEXHAUST:	Necessary
SPECIAL:	None
MECHANICAL(GENERAL):	Acceptable
OTHER:	None
PROTECTIVE CLOTHING:	Wear OSHA Standard goggles or face shield. Consult safety equipment supplier. Wear gloves, apron, & footwear impervious to this material. Wash clothing before reuse.

IX. DOT TRANSPORTATION

SHIPPING NAME:	Not Applicable
HAZARD CLASS:	Not Applicable
ID NUMBER:	Not Applicable
MARKING:	Not Applicable
LABEL:	Not Applicable
PLACARD:	Not Applicable
HAZARDOUSSUBSTANCE/RQ:	Not Applicable
SHIPPING DESCRIPTION:	Not Applicable

X. HAZARD CLASSIFICATION

This product meets the following hazard definition as defined by the Occupatinal Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200): Health Hazard (Section VI)

XI. ADDITIONAL COMMENTS

THIS PRODUCT MEETS REQUIREMENTS OF LA RULE 66 & SIMILAR REGULATIONS.

THIS PRODUCT DOES NOT APPEAR IN THE CALIFORNIA HEALTH & SAFETY CODE, SECTION 25249.5 ("PROPOSITION 65" LISTING OF CHEMICALS UNDER THE ACT)

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

ETHYLENE GLYCOL

DATED:10/89

101

Effective Date: 01/03/95

PRODUCT IDENTITY: PEAK® ANTIFREEZE & COOLANT

1. SUPPLIER

OLD WORLD INDUSTRIES, INC.
4065 COMMERCIAL AVENUE
NORTHBROOK, ILLINOIS 60062
PHONE: 708-559-2000
EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)

2. INGREDIENTS

MATERIAL	*CAS#*	*% BY WT*	*PEL (OSHA)*	*TLV (ACGIH)*
Ethylene Glycol	107-21-1	90 - 95	50 ppm	50 ppm
Diethylene Glycol	111-46-6	0 - 5	None	None
Di Potassium Phosphate	7758-11-4	1 - 2	None	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Slight odor. *May be fatal if swallowed.* *Vapors can cause eye irritation.*

LOWEST KNOWN LD50 (ORAL)	107-21-1	5840 mg/kg (Rats)
LOWEST KNOWN LD50 (SKIN)	107-21-1	9530 mg/kg (Rabbits)

HAZARD RATING SYSTEM (NFPA)

HEALTH: 1 *FLAMMABILITY: 1* *REACTIVITY: 0*

KEY: 0 - Minimal, 1 - Slight, 2 - Moderate, 3 - Serious, 4 - Severe

POTENTIAL HEALTH EFFECTS

Routes of Exposure: Inhalation, Ingestion, Skin Contact/Absorption, Eye Contact

EYE: May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Vapors or mists may cause eye irritation.

SKIN: Prolonged or repeated exposure not likely to cause significant skin irritation. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Repeated skin exposure may result in absorption of harmful amounts. Massive contact with damaged skin or of material sufficiently hot to burn skin may result in absorption of potential lethal amounts.

INGESTION: Single dose oral toxicity is considered to be moderate. Excessive exposure may cause central nervous system effects, cardiopulmonary effects (metabolic acidosis), and kidney failure. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause serious injury, even death.

INHALATION: At room temperature, exposures to vapors are minimal due to physical properties; higher temperatures may generate vapor levels sufficient to cause adverse effects.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Repeated excessive exposures may cause severe kidney and also liver and gastrointestinal effects. Signs and symptoms of excessive exposure may be central nervous system effects. Signs and symptoms of excessive exposure may be nausea and/or vomiting. Signs and symptoms of excessive exposure may be anesthetic or narcotic effects. Observations in animals include formation of bladder stones after repeated oral doses of ethylene glycol. Reports of kidney failure and death in burn patients suggest the ethylene glycol may have been a factor. The use of topical applications containing this material may not be appropriate in severely burned patients or individuals with impaired renal function.

CANCER INFORMATION: Based on data from long-term animal studies, ethylene glycol is not believed to pose a carcinogenic risk to man.

TERATOLOGY (BIRTH DEFECTS): Exposure to ethylene glycol has caused birth defects in laboratory animals only at doses toxic to the mother.

REPRODUCTIVE EFFECTS: Ethylene glycol has not interfered with reproduction in animal studies except at very high doses.

4. FIRST AID MEASURES

Ensure physician has access to this MSDS.

Eyes: Immediately flush eyes with large amounts of water for 15 minutes, lifting lower and upper lids. Get medical attention as soon as possible. Contact lenses should never be worn when working with this chemical.

Skin: Flush area of skin contact immediately with large amounts of water for at least 15 minutes while removing contaminated clothing. If irritation persists after flushing, get medical attention promptly. Wash clothing before re-use.

Inhalation: If inhaled, immediately remove victim to fresh air and call ***emergency medical care.*** If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: If swallowed give two glasses of water and immediately ***call physician.*** Induce vomiting of conscious patient by pressing finger down throat. Small amounts entering mouth should be rinsed out for 5 minutes.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASH POINT: 119C (247F)
METHOD USED: Setaflash
AUTOIGNITION TEMPERATURE: Autoignition temperature for ethylene glycol is 398C (748F).

FLAMMABILITY LIMITS
LFL: 3.2%
UFL: Not determined.

HAZARDOUS COMBUSTION PRODUCTS: Hazardous combustion products may include and are not limited to carbon monoxide, carbon dioxide and trace amounts of aldehydes and organic acids. When available oxygen is limited, as in a fire or when heated to very high temperatures by a hot wire or plate, carbon monoxide and other hazardous compounds such as aldehydes might be generated.

EXTINGUISHING MEDIA: Water fog or fine spray. Alcohol resistent foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively. Carbon dioxide. Dry chemical. Do not use direct water stream. May spread fire.

FIRE FIGHTING INSTRUCTIONS: No fire and explosion hazards expected under normal storage and handling conditions (i.e. ambient temperatures). However, ethylene glycol or solutions of ethylene glycol and water can form flammable vapors with air if heated sufficiently. Keep people away. Isolate fire area and deny unnecessary entry.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

6. ACCIDENTAL RELEASE MEASURES

PROTECT PEOPLE: Material is moderately toxic when ingested. Take adequate precautions to keep people, especially children away from spill site. PVC-coated rubber gloves and monogoggles or faceshield can be used during cleanup of spill site.

PROTECT THE ENVIRONMENT: Do not dump used product or diluted material into sewers, on the ground, or into any body of water.

CLEANUP: Small spills: Soak up with absorbent material. Large spills: Dike and pump into suitable containers for disposal. Ensure compliance with all applicable statues that require notification of appropriate government officials.

7. HANDLING AND STORAGE

Product on surfaces can cause slippery conditions. Practice reasonable care and cleanliness. Avoid breathing spray mists if generated. Keep out of reach of children. Product may become a solid at temperatures below -22°C (-8°F). Do not store near food, foodstuffs, drugs or potable water supplies.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Respiratory protection is required if airborne concentration exceeds TLV. At any detectable concentration, any self-contained breathing apparatus with a full facepiece and operated in a pressure-demand or other positive pressure mode or any supplied-air respirator with a full facepiece and operated in a pressure-demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive pressure mode.

Escape: Any air-purifying full facepiece respirator (gas mask) with a chin-style or front- or back-mounted organic vapor canister or any appropriate escape-type self-contained breathing apparatus.

Skin Protection: Protective gloves recommended when prolonged skin contact can not be avoided. Polyethylene; Neoprene; Nitrile; Polyvinyl alcohol; Natural Rubber, Butyl Rubber. Safety shower should be available.

Eye Protection: Safety goggles and face shield. Emergency eyewash should be available. Contact lenses should not be worn when working with this chemical.

Engineering Controls: Use general or local exhaust ventilation to meet TLV requirements.

9. PHYSICAL PROPERTIES

BOILING RANGE:	171 -175°C) (339 - 348°F)
FREEZE POINT:	-22°C (-8°F)
SPECIFIC GRAVITY (Water -1):	1.12
POUNDS/GALLONS	9.3
VAPOR PRESSURE (mm of Hg) @ 20C:	<0.1
VAPOR DENSITY (air=1):	2.1
WATER SOLUBILITY:	Complete
EVAPORATION RATE (BuAc = 1):	Nil
% VOLATILE BY VOLUME:	97.0
APPEARANCE:	Green
ODOR:	Mild

10. STABILITY and REACTIVITY

STABILITY:	Stable
CONDITIONS TO AVOID:	Isolate from oxidizers, heat & open flame.
MATERIALS TO AVOID:	Isolate from strong oxiders such as permanganates, chromates & peroxides.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide from burning.
HAZARDOUS POLYMERIZATION:	Material is not known to polymerize.

11. TOXICOLOGICAL INFORMATION

SKIN: The dermal LD50 has not been determined.

INGESTION: The lethal dose in humans is estimated to be 100 ml (3 ounces). The oral LD50 for rats is in the 6000-13,000 mg/kg range.

MUTAGENICITY (THE EFFECTS ON GENETIC MATERIAL): In vitro mutagenicity studies were negative. Animal mutagenicity studies were negative.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE

MOVEMENT & PARTITIONING: Bioconcentration potential is low (BCF less than 100 or Log Kow less than 3). Log octanol/water partition coefficient (log Kow) is -1.36. Henry's Law Constant (H) is 6.0E-08 atm-m3/mol. Bioconcentration factor (BCF) is 10 in golden orfe.

DEGRADATION & TRANSFORMATION: Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD greater than 40%). 5-Day biochemical oxygen demand (BOD5) is 0.78 p/p. 10-Day biochemical oxygen demand (BOD10) is 1.06 p/p. 20-Day biochemical oxygen demand (BOD20) is 1.15 p/p. Theoretical oxygen demand (ThOD) is calculated to be 1.29 p/p. Biodegradation may occur under both aerobic and anaerobic conditions (in either the presence or absence of oxygen). Inhibitory concentration (IC50) in OECD "Activated Sludge, Respiration Inhibition Test" (Guideline # 209) is < 1000 mg/L. Degradation is expected in the atmospheric environment within days to weeks.

ECOTOXICOLOGY: Material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/L in most sensitive species). Acute LC50 for fathead minnow (Pimephales promelas) is 51000 mg/L. Acute LC50 for bluegill (Lepomis macrochirus) is 27549 mg/L. Acute LC50 for rainbow trout (Oncorhynchus mykiss) is about 18000-46000 mg/L. Acute LC50 for guppy (Poecilia reticulata) is 49300 mg/L. Acute LC50 for water flea (Daphnia magna) is 46300-51100 mg/L. Acute LC50 for the cladoceran Ceriodaphnia dubia is 10000-25800 mg/L. Acute LC50 for crayfish is 91430 mg/L. Acute LC50 for brine shrimp (Artemia salina) is 20000 mg/L. Acute LC50 for

golden orfe (Leuciscus idus) is greater then 10000 mg/L. Acute LC50 for goldfish (Carassius auratus) is greater than 5000 mg/L. Growth inhibition EC50 for green alga Selenastrum capricornutum is 9500-13000 mg/L.

13. DISPOSAL CONSIDERATIONS

DO NOT discharge to sewer. Wear appropriate personal protection. Take up with sand, vermiculite, or similar inert material. Dispose in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Proper Shipping Name:	Proprietary Antifreeze	ID No.:	Not regulated
Hazard Class:	Not regulated	Packaging Group:	Not regulated
Label:	Not regulated		

15. REGULATORY INFORMATION

THIS PRODUCT CONTAINS COMPONENT(S) CITED ON THE FOLLOWING REGULATIONS.

CHEMICAL NAME	*CAS NUMBER*
Ethylene Glycol	107-21-1

UNITED STATES -
TSCA - Inventory: Listed

WATER STANDARDS: No data available

ATMOSPHERIC STANDARDS: Clean Air Act (1990) - List of Hazardous Air Contaminants: listed

CERCLA - Reportable Quantities: 1 pound (0.454 kg)

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.

STATE RIGHT-TO-KNOW:

California - Exposure Limits - Ceilings:	vapor-50 ppm ceiling; 125 mg/m3 ceiling
Director's List of Hazardous Substances:	listed
Florida - Hazardous Substances List:	listed
Massachusetts - Right-to-Know List:	listed
Minnesota - Haz. Subs. List:	listed (particulate and vapor)
New Jersey - Right-to-Know List (Total):	Present greater than 1.0%
Pennsylvania Right-to-Know List:	environmental hazard

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous materials Information System (WHMIS) Classification for this product is:

D2A - material has potential toxic effects.
Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

16. OTHER INFORMATION

Contact: Mr. Michael Reed Phone: (708) 559-2000

Old World Industries, Inc. makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, Inc. as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, Inc. assume liability arising out of the use by others of this product referred to herein. The data in this MSDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.