

#36044 & 36046

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

PRODUCT IDENTITY: FULL FORCE® ANTIFREEZE & COOLANT

I. SUPPLIER

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

II. INGREDIENTS

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

HAZARD RATING (NFPA 704)

HEALTH (NFPA): 1 **FLAMMABILITY: 1** **REACTIVITY: 0**

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

THIS PRODUCT IS LISTED IN THE TSCA INVENTORY

* Denatonium Benzoate (DNB)

III. PHYSICAL DATA

BOILING RANGE: 171 - 175°C (339 - 348°F)
FREEZE POINT: - 22°C (-8°F)
SPECIFIC GRAVITY (Water = 1): 1.12

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III. PHYSICAL DATA (CONTINUED)

POUNDS/GALLONS	9.3
VAPOR PRESSURE (mm of Hg) @ 20C:	0.1
VAPOR DENSITY (air=1):	2.1
WATER SOLUBILITY:	Complete
ACID ABSORPTION (85% H2SO4):	Appreciable
EVAPORATION RATE (BuAc = 1):	Nil
% VOLATILE BY VOLUME:	97.0
APPEARANCE:	Green
ODOR:	Mild

IV. FIRE & EXPLOSION HAZARDS

AUTO IGNITION TEMPERATURE:	750°F
FLASH POINT (TCC):	118°C / 245°F (Lowest Component)
LOWER FLAMMABLE LIMIT IN AIR (% by volume):	3.2 (Lowest Component)
FLAMMABILITY CLASSIFICATION:	Class IIIB
FIRE EXTINGUISHING MEDIA:	NFPA Class B extinguisher. For Class III B liquid fire (dry chemical, foam or carbon dioxide (CO ₂))
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

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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.
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.
EFFECTS OF ACUTE EXPOSURE:	Primary irritation to skin, defatting, dermatitis. Primary irritation to eyes, redness, tearing, blurred vision. Absorption through skin increase exposure. SWALLOWING: Harmful or fatal if swallowed; swallowing may cause abdominal irritation, nausea, vomiting & diarrhea.
EFFECTS OF CHRONIC OVEREXPOSURE:	Inhalation of mist may produce headache, nausea & signs of central nervous system involvement, particularly dizziness & nystagmus. Repeated skin contact may, in a very small proportion of cases, cause sensitization with the development of allergic contact dermatitis. The incidence is significantly less than 1% with the undiluted material. May aggravate existing kidney disease.
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 PHYSICIAN IMMEDIATELY! Induce vomiting promptly following physician's instructions or by having patient stick finger down throat. Never give anything by mouth to an unconscious person.

VII. SAFE HANDLING & USE PRECAUTIONS

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SPILL OR LEAK PROCEDURES:

Small: Mop up with absorbent material and transfer to hood.

Large: Isolate from oxidizers, heat and open flame. Persons without proper protection should be kept from 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 and federal health, safety and 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 containers very hazardous! Follow all label precautions!

VIII. CONTROL MEASURES

RESPIRATORY PROTECTION:

Ventilate to keep air below 50 ppm. If over TLV, in accordance with 29 CFR 1910.134, (SPECIFIC TYPE), USE a NIOSH-approved, positive-pressure, self-contained breathing apparatus.

VENTILATION: LOCAL EXHAUST:

Necessary

MECHANICAL (GENERAL):

Acceptable

PROTECTIVE CLOTHING:

Wear OSHA standard goggles or face shield. Consult safety equipment supplier. Wear gloves, apron and footwear impervious to this material. Wash clothing before reuse.

SPECIAL / OTHER:

None

IX. DOT TRANSPORTATION

PROPER SHIPPING NAME:

Proprietary Antifreeze

HAZARD CLASS:

None

UNITED NATION NUMBER:

None

IX. DOT TRANSPORTATION (CONTINUED)

MARKING: None
LABEL: None
PLACARD: None
HAZARDOUS SUBSTANCE/RQ: One pound

X. HAZARD CLASSIFICATION

This product meets the following hazard definition as defined by the Occupational 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

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DATED: 3 / 15 / 94

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