CHAMPION
INDUSTRIAL HYGIENE, TOXICOLOGY, AND MATERIAL
SAFETY DATA SHEET

Note: No representation is made as to the accuracy of the information herein. See page 7 for conditions under which data are furnished.

Trade Name: Champion Anti-Freeze Coolant
Manufacturer's Name: Champion Packaging, Inc.
Emergency Telephone Number: (914) 831-3400 ext. 204
Address: 1101 Lombard Road, Lombard, IL 60148
Chemical Name and/or Family or Description: Antifreeze
THIS PRODUCT IS CLASSIFIED AS:

___ Carcinogenic by OSHA, IARC, or NTP  X  Not Carcinogenic

WARNING STATEMENT:
WARNING!!! HARMFUL OR FATAL IF SWALLOWED
KEEP OUT OF REACH OF CHILDREN
MAY CAUSE IRRITATION TO EYES

OCCUPATIONAL CONTROL PROCEDURES

Protective Equipment (Type)
Eyes: Chemical type goggles or face shield optional.
Skin: Exposed employees should exercise reasonable personal cleanliness; this includes cleansing exposed skin areas several times daily with soap and water, and laundering or dry cleaning soiled work clothing at least weekly.
Inhalation: Supplied air positive-pressure full-facepiece respirators in emergencies, cleaning spills, entry into tanks, confined spaces.
Ventilation: Adequate to meet component permissible concentrations.

Permissible Concentrations:
Air: None established for product; see p. 4 for component permissible concentrations; for ethylene glycol; 50ppm ceiling (ACGIH 1986-87)

EMERGENCY AND FIRST AID PROCEDURES

Eyes: Flush with water for 15 minutes.
Skin: Wash exposed areas with soap and water.
Ingestion: Give large quantities of water, then induce vomiting immediately. Get immediate medical attention. Do not make and unconscious person vomit. Never give anything by mouth to an unconscious person.
Inhalation: Remove to fresh air; if not breathing apply artificial respiration. Get medical attention. Keep affected person warm and at rest.
Other Instructions: None.
### PHYSIOLOGICAL EFFECTS:

**Effects of Exposure**

**Acute:**
- **Eyes:** Believed to cause slight eye irritation.
- **Skin:** Believed to be slightly irritation upon prolonged contact.
- **Respiratory System:** Drowsiness, narcosis, and unconsciousness possible upon exposure to high concentrations in poorly ventilated confined spaces.

**Chronic:**
Liver and kidney damage in 2 year rat feeding study using 1-2% ethylene glycol. Oral administration of very high doses of ethylene glycol produced birth defects in laboratory animals.

**Other:** See additional Comments p. 6.

**Sensitization Properties:**
- **Skin:** Unknown
- **Respiratory:** Unknown

### MEDIAN LETHAL DOSE (LD 50, LC 50) (SPECIES)

- **Oral Animal data does not reflect human toxicity; See Add'l Cmnt P.6**
- **Inhalation N.D.**
- **Dermal Believed to be greater than 3 g/kg (rabbit); practically non-toxic**
- **Other N.D.**

### IRRITATION INDEX, ESTIMATION OF IRRITATION (SPECIES)

- **Skin Believed to be 0.5-1.0/8.0 (rabbit); slightly irritating**
- **Eyes Believed to be 15-25/110 (rabbit); slightly irritating**

### SYMPTOMS OF EXPOSURE
See above and Additional Comments p. 6

### FIRE PROTECTION INFORMATION

- **Ignition Temp. °F. N.D.**
- **Flash Point °F. (Method) 240 F (COC)**
- **Flammable Limits (%): Lower 3.2 Upper N.D.**

**Products Evolved When Subjected to Heat or Combustion:**
Carbon monoxide and carbon dioxide may be formed on burning in limited air supply.

**Recommended Fire Extinguishing Agents and Special Procedures:**
According to the National Fire Protection Association Guide, use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

**Unusual or Explosive Hazards:**
None.
**ENVIRONMENTAL PROTECTION**

Waste Disposal Method: 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. (See Remarks for Waste Classification.)

Procedures in Case of Breakage or Leakage:
(Transportation Spills Call CHEMTREC (800) 424-9300)
Avoid Contact with eyes. Contain spill of possible. Wipe up or absorb on suitable material and shovel up.

Remarks: Waste Classification: Product has been evaluated for RCRA characteristics and does not meet criteria of a hazardous waste if discarded in its purchased form.

**PRECAUTIONS**

WARNING! HARMFUL OR FATAL IF SWALLOWED
KEEP OUT OF REACH OF CHILDREN
MAY CAUSE IRRITATION TO EYES

Do not drink antifreeze or solution.
Avoid contact with eyes.
Wash thoroughly after handling.
Do not store in open or unlabeled containers.
ETHYLENE GLYCOL BASE.
Ethylene glycol has produced birth defects in rodents.

Requirements for Transportation, Handling and Storage: Minimum feasible handling temperatures should be maintained.
Periods of exposure to high temperatures should be minimized.
Water contamination should be avoided.

DOT Proper Shipping Name: N.A.
DOT Hazard Class (if applicable): N.A.

**CHEMICAL AND PHYSICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point (°F)</td>
<td>388</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Less Than 0.1 (mmHg)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.13 (H2O=1)</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>2.14 (Air=1)</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Fluorescent green liquid; mild odor.</td>
</tr>
<tr>
<td>pH of undiluted product</td>
<td>10.8</td>
</tr>
<tr>
<td>Solubility</td>
<td>Sol.</td>
</tr>
<tr>
<td>Percent Volatile by Volume</td>
<td>nil.</td>
</tr>
<tr>
<td>Evaporation</td>
<td>Less than 1</td>
</tr>
<tr>
<td>Viscosity</td>
<td>10 cP @ 20 C</td>
</tr>
<tr>
<td>Hazardous Polymerizations</td>
<td>Do Not Occur</td>
</tr>
<tr>
<td>The Material Reacts Violently With:</td>
<td>Strong Oxidizers</td>
</tr>
</tbody>
</table>

(See page 6 for further details)
<table>
<thead>
<tr>
<th>Chemical/Common Name</th>
<th>CAS No.</th>
<th>Exposure Limit</th>
<th>Range in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>*1,2-ethanediol</td>
<td>107211</td>
<td>50 ppm Ceiling-ACGIH</td>
<td>95.00 - 99.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50ppm Ceiling-OSHA</td>
<td></td>
</tr>
<tr>
<td>*Borax</td>
<td>1303964</td>
<td>1mg/m³ TWA ACGIH</td>
<td>1.00 - 3.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10mg/m³ TWA OSHA</td>
<td></td>
</tr>
</tbody>
</table>

*Hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

### SARA TITLE III

I. Title III Section 302/304 Extremely Hazardous Substance

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>%</th>
<th>RQ (lbs)</th>
<th>TPQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
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II. CERCLA Section 102(a) Hazardous Substance

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<th>Component</th>
<th>CAS No.</th>
<th>%</th>
<th>RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trisodium orthophosphate</td>
<td>10101890</td>
<td>0.1-0.99</td>
<td>5000</td>
</tr>
</tbody>
</table>

III. Title III Section 311 Hazard Categorization

- Acute
- Chronic
- Fire
- Pressure
- Reactive
- Not Applicable
  
  X   X

IV. Title III Section 313 Toxic Chemicals

<table>
<thead>
<tr>
<th>Component</th>
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<tbody>
<tr>
<td>1,2-Ethanediol</td>
<td>107211</td>
<td>95-99.99</td>
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CHAMPION ANTI-FREEZE COOLANT

WARNING! HARMFUL OR FATAL IF SWALLOWED
KEEP OUT OF REACH OF CHILDREN
MAY CAUSE IRRITATION TO EYES

Do not drink antifreeze or solution.
Avoid contact with eyes.
Wash thoroughly after handling.
Do not store in open or unlabeled containers.
ETHYLENE GLYCOL BASE.
Ethylene glycol has produced birth defects in rodents.

If swallowed, INDUCE vomiting immediately.
Call a doctor. In case of contact flush eyes with
plenty of water for at least fifteen minutes.
NEVER give anything by mouth to an unconscious person.

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<td>1.00 - 3.99</td>
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</table>

*Hazardous according to OSHA (1910.1200) or one or more state
Right-To-Know lists. Not classified as a hazardous material
by DOT definition.

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</tr>
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<tbody>
<tr>
<td>Health: 1</td>
</tr>
<tr>
<td>Reactivity: 0</td>
</tr>
<tr>
<td>Flammability: 1</td>
</tr>
<tr>
<td>Special: -</td>
</tr>
</tbody>
</table>

CAUTION: Misuse of empty containers can be hazardous. Empty
containers can be hazardous if used to store toxic,
flammable, or reactive materials. Cutting or welding
of empty containers might cause fire, explosion or toxic
fumes from residues. Do not pressurize or expose to open
flame or heat. Keep container closed and drum bungs in
place.

HEALTH EMERGENCY TELEPHONE: (914) 831-3400 (EXT. 204)
STATE OF MICHIGAN CRITICAL MATERIALS ACT (REVISED 1989)
No critical materials present.

Lethal dose (human) 1.0-1.5 g/kg. Symptoms of ingestion:
Behavioral changes, Drowsiness, Vomiting, Diarrhea, Thirst,
Convulsions, Cyanosis, Rapid Heart Rate, Pulmonary edema and
renal failure. Acute or chronic oral consumption for products
containing ethylene glycol can produce adverse health effects
in humans. Such products should NOT be used in potable water
systems or other systems where contamination of potable water
supplies is possible. This product, when introduced into water
systems will be degraded biologically in both surface waters
and waste treatment plants, and would therefore present no
aquatic toxicity.
WHMIS Classification: Class D, Div. 2, Subdiv. A, Materials
Causing Other Toxic Effects - Very Toxic.