

Cross Packaging Material Safety Data Sheet

Cross Oil – Packaging Division

484 East 6th Street
Smackover, AR USA
71762 USA

Emergency: 870-881-8700, Ext. 1163

Information: 870-881-8700

Fax: 870-864-8656

Revision Date: 02/02/2011

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product: Antifreeze and Coolant
CAS Registry Number: Not applicable for mixtures
Synonyms: Anti-freeze, Coolant, Ethylene Glycol, Gard Anti-freeze
Item Number: -
Generic/Chemical Name: Ethylene Glycol
Product Type: Automotive Chemical

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	%	ACGIH TWA	OSHA PEL	OSHA STEL	SKIN
Ethylene Glycol	107-21-1	50 – 97.99	100 mg/m3	50 ppmv	None Established	None Established
De-ionized Water	7732-18-5	1 – 46.99	None Established	None Established	None Established	None Established
Sodium Nitrite	7632-00-0	10 – 30.00	1 mg/m3	1 mg/m3	3 mg/m3	None Established

SECTION 3 HAZARDS IDENTIFICATION

WARNING: EXPOSURE TO LIQUID, VAPOR, OR MIST MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT. INGESTION OR ABSORPTION THROUGH THE SKIN OR BREATHING OF HEATED VAPOR AND MIST MAY RESULT IN CENTRAL NERVOUS SYSTEM AND ADVERSE REPRODUCTIVE EFFECTS.

Eye Contact: Contact with liquid can cause eye irritation, tearing, blurred vision and transient corneal injury.

Skin Contact: Flush exposed area with water and follow by washing with soap if available. If skin irritation persists after washing, get medical advice.

Inhalation: Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

Ingestion: DO NOT take internally. If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

SECTION 4 FIRST AID MEASURES

Eye Contact: Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30 minutes. If eye irritation persists, seek medical advice.

Skin Contact: Flush exposed area with water and follow by washing with soap if available. If skin irritation persists after washing, get medical advice.

Inhalation: Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

ANTIFREEZE COOLANT

Page 1 of 6

484 E. 6TH STREET • SMACKOVER, AR 71762 • PHONE 870-881-8700 • FAX 870-864-8656

Cross Packaging Material Safety Data Sheet

Ingestion: DO NOT take internally. If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Note to Physician: IMMEDIATE TREATMENT IS EXTREMELY IMPORTANT! Ethylene Glycol (EG) and Diethylene Glycol (DEG) intoxication may initially produce behavioral changes, drowsiness, vomiting, diarrhea, thirst, and convulsions. EG and DEG are nephrotoxic. End stages of poisoning may include renal damage or failure with acidosis. Supportive measures, supplemented with hemodialysis if indicated, may limit the progression and severity of toxic effects. May cause cardiopulmonary effects. For ETHYLENE GLYCOL POISONING, intravenous ethanol is a recognized antidotal treatment; other antidotal treatments also exist for ethylene glycol poisoning.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point: Min. 130°C (266°F) by Pensky-Martens Closed Cup, ASTM D 93

Upper Flammable Limit: Not determined

Lower Flammable Limit: Not determined

Extinguishing Media: Prevent run off from fire control or dilution from entering streams, sewers or drinking water supply. Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO₂) to extinguish flames. Do not use a direct stream of water.

Special Fire Fighting Procedures: Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Not determined

By-products of Combustion: Not determined

Auto-ignition Temperature: Not determined

Explosion Data: Not determined. Care should always be exercised in dust/mist areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Procedures (Land): Shut off source of leak if safe to do so. Dike and contain spill.
FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.
FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Spill Procedures (Water): Shut off source of leak if safe to do so. Dike and contain spill.

Waste Disposal Method: DO NOT FLUSH TO SEWERS. All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded may be a regulated waste. Refer to state and local regulations. Department of Transportation regulations may apply for transporting this material when spilled. See Section 14.
CAUTION - If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

SECTION 7 HANDLING AND STORAGE

ANTIFREEZE COOLANT

Page 2 of 6

484 E. 6TH STREET • SMACKOVER, AR 71762 • PHONE 870-881-8700 • FAX 870-864-8656

Cross Packaging Material Safety Data Sheet

Handling Procedures:	Do not ingest. Avoid prolonged or repeated contact with eyes, skin or clothing. Avoid breathing of vapors, fumes or mists. Use with adequate ventilation. Wash thoroughly after handling.
Storage Procedures:	Do not store in open or unlabeled containers. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.
Additional Information:	Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protection:	Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.
Respiratory Protection:	For emergencies and unknown concentrations, use NIOSH/MSHA approved positive pressure self-contained breathing apparatus. Otherwise a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed where airborne contaminants may occur.
Eye Protection:	Chemical Goggles - If liquid contact is likely., or Safety glasses with side shields
Hand Protection:	Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.
Other Protection:	Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. If handling hot material use insulated protective equipment. Launder soiled clothes. Properly dispose of contaminated leather articles and other materials, which cannot be decontaminated.
Local Control Measures:	Use adequate ventilation when working with material in an enclosed area. Mechanical methods such as fume hoods or area fans may be used to reduce localized vapor/mist areas. If vapor or mist is generated when the material is heated or handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified exposure. Eyewash stations and showers should be available in areas where this material is used and stored.
Other:	Consumption of food and drink should be avoided in work areas where product is present. Always wash hands and face with soap and water before eating, drinking, or smoking.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor	May be dyed fluorescent green liquid. Mild odor
Gravity by ASTM D 1298:	
Specific Gravity @ 15.6°C	1.100
Kinematic Viscosity:	30 cSt @40°C:
Boiling Point:	Expected to be > 100°C / 212°F
Pour Point (°C /°F):	-30°C /
by ASTM D 97	-22°F

SECTION 10 STABILITY AND REACTIVITY

ANTIFREEZE COOLANT

Page 3 of 6

484 E. 6TH STREET • SMACKOVER, AR 71762 • PHONE 870-881-8700 • FAX 870-864-8656

Cross Packaging Material Safety Data Sheet

- Stability:** Material is stable at room temperature and pressure.
- Decomposition Products:** Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Acids, Aldehydes, Carbon Monoxide, Carbon Dioxide, Ketones and other unidentified organic compounds may be formed upon combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

- Acute Toxicity:** Dermal LD50 > 2 g/kg(Rabbit) OSHA: Non-Toxic Based on components(s)
- Carcinogenicity Classification**
Antifreeze/Coolant
NTP: No IARC: Not Reviewed ACGIH: No OSHA: No Cardiovascular System
Ingestion of large doses can cause metabolic acidosis that results in cardiopulmonary effects.
- Developmental Toxicity**
Oral exposure of pregnant rats and mice to ethylene glycol has produced birth defects in the offspring.
- Kidney**
Ingestion of ethylene glycol can cause bladder stones and kidney damage which can be fatal.
- Liver**
Prolonged and repeated ingestion of ethylene glycol has produced liver damage in rats.
- Lungs**
Ingestion of large doses can cause metabolic acidosis that results in cardiopulmonary effects.
- Whole Animal**
Orally, humans are more sensitive to ethylene glycol than rodents. The reported lethal dose range for an adult human is 1 -2 ml/kg, or 1/4 to 1/2 cup. Ingestion can result in metabolic acidosis.

SECTION 12 ECOLOGICAL INFORMATION

- Environmental Toxicity:** This material may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.
- Environmental Fate:** The toxicity of this material to aquatic organisms has not been fully evaluated. This material must not be discharged or allowed to come into contact with sewage and drainage systems and any surface water body.

SECTION 13 DISPOSAL CONSIDERATIONS

- Waste Disposal:** Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.
- Disposal Consideration:** Place used, contaminated, or excess material into disposable containers and dispose of in a manner consistent with local and state regulations. Contact local environmental or health authorities for approved disposal of this material.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT Information

- Bulk Shipping Description:** Ethylene Glycol.

ANTIFREEZE COOLANT

Page 4 of 6

484 E. 6TH STREET • SMACKOVER, AR 71762 • PHONE 870-881-8700 • FAX 870-864-8656

Cross Packaging Material Safety Data Sheet

Non-Bulk Shipping Description: Ethylene Glycol.

Identification Number: UN 3082.

Hazard Classification: 9 (Miscellaneous)

Other: See 49 CFR for additional requirements for descriptions, allowed modes of transport, and packaging. For more information concerning spills during transport, consult latest DOT Emergency Response Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

SECTION 15 REGULATORY INFORMATION

Clean Water Act/Oil Pollution Act: Under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Control Act of 1990, this material is considered an oil. Any spills or discharges that produce a visible sheen or film on surface of water, or in waterways, ditches, or sewers leading to surface water must be reported. Contact the National Response Center at 800-424-8802.

TSCA: All components of this material are listed in the U.S. TSCA Inventory.

Other TSCA: Not applicable.

SARA Title III: Section 302/304 Extremely Hazardous Substances: None
 Section 311/312 Hazard Categorization:
 Acute (immediate health effects): Yes
 Chronic (delayed health effects): Yes
 Fire (hazard): No
 Reactivity (hazard): No
 Pressure (sudden release hazard): No

Section 313 Toxic Chemicals: Ethylene Glycol

CERCLA: For stationary sources - reportable quantity: Not determined.
 Due to: Not applicable.
 For moving sources - reportable quantity: Not determined.
 Due to: Not applicable.

Recommend contacting the local authorities in the event of any type of spill to determine local reporting requirements and also to aid in the cleanup.

California Prop. 65: Not applicable.

SECTION 16 OTHER INFORMATION

	NFPA 704	NPCA-HMIS	KEY
HEALTH:	2	2	0 = Minimal
FIRE:	1	1	1 = Slight
REACTIVITY:	0	0	2 = Moderate
SPECIFIC HAZARD:	NONE	N/A	3 = Serious
PROTECTION INDEX:	N/A	B	4 = Severe

Precautionary Labels: NONE REQUIRED

This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, Cross Packaging must rely upon information provided by the material manufacturers or distributors.

Cross Packaging Material Safety Data Sheet

Prepared by: David Collins
File: Antifreeze Coolant

INFORMATION PROVIDED IN THIS MSDS IS CONSIDERED ACCURATE AND RELIABLE BASED ON INFORMATION ISSUED FROM INTERNAL AND OUTSIDE SOURCES TO THE BEST OF CROSS PACKAGING'S KNOWLEDGE; HOWEVER, CROSS PACKAGING MAKES NO REPRESENTATIONS, GUARANTEES OR WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE, REGARDING THE ACCURACY OF SUCH INFORMATION OR THE RESULT TO BE OBTAINED FROM THE USE THEREOF, OR AS TO THE SUFFICIENCY OF INFORMATION HEREIN PRESENTED. CROSS PACKAGING ASSUMES NO RESPONSIBILITY FOR INJURY TO RECIPIENT OR TO THIRD PERSONS OR FOR ANY DAMAGE TO ANY PROPERTY AND RECIPIENT ASSUMES ALL SUCH RISKS.