

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

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SECTION 1

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product: Global Antifreeze and Coolant 50/50
CAS Registry Number: Not applicable for mixtures
Synonyms: Antifreeze, Coolant, Antifreeze 50/50, Ethylene Glycol, Gard Antifreeze, Universal Antifreeze Coolant
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
Phosphoric Acid	7664-38-2	1 – 2.99	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.

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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

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- 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** Amber, May be dyed another color. Mild odor
- Gravity** by ASTM D 1298:
Specific Gravity @ 15.6°C 1.065
- Kinematic Viscosity:** 30 cSt @40°C:
- Boiling Point:** Expected to be > 100°C / 212°F
- Pour Point (°C /°F):** -34°C /
by ASTM D 97 -29°F

SECTION 10 STABILITY AND REACTIVITY

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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.

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Prepared by: David Collins
File: Global Antifreeze Coolant 50/50

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