Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product:	**Heavy Duty Extended Life Coolant Concentrate** **Heavy Duty Extended Life Coolant 50/50**
CAS Registry Number:	Not applicable for mixtures
Synonyms:	Anti-freeze, Coolant, Extended Life Coolant, Extended Life Antifreeze, Ethylene Glycol, Gard Anti-freeze, Anti-freeze 50/50, Antifreeze and Coolant Pre-diluted 50/50
Generic/Chemical Name:	Ethylene Glycol
Product Type:	Automotive Chemical

Martin Lubricants;
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Smackover, AR 71762
USA

Emergency: **ChemTrec 800-424-9300**
Information: 870-881-8700
Fax: 870-864-8656
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SECTION 2 HAZARDS IDENTIFICATION

WARNING: Harmful or fatal if swallowed. May cause acidosis, cardiopulmonary and kidney failure.

May cause long-term adverse effects in the aquatic environment.

	NPCA-HMIS	KEY
HEALTH:	2	0 = Minimal
FIRE:	1	1 = Slight
REACTIVITY:	0	2 = Moderate
SPECIFIC HAZARD:	N/A	3 = Serious
PROTECTION INDEX:	B	4 = Severe

Precautionary Labels: NONE REQUIRED

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

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

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

Ingestion: Harmful if swallowed. May cause acidosis, cardiopulmonary and kidney failure. 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.

Other Information: Possibility of organ or organ system damage from prolonged exposure. Target organs:

- Kidney
- Lungs
- Cardiovascular system
- Internal abuse, misuse or other massive exposure may cause multiple organ damage or death.

Signs and Symptoms	Kidney toxicity may be recognized by blood in the urine or increased or decreased urine flow. Other signs and symptoms can include nausea, vomiting, abdominal cramps, and diarrhea, lumbar pain shortly after ingestion and possibly narcosis and death. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued exposure may result in unconsciousness and/or death.
Aggravated Medical Condition	Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Kidney. Cardiovascular system.
Environmental Hazards	Not classified as dangerous for the environment.
Additional Information	Under normal conditions of use or in a foreseeable emergency, this product meets the definition of a hazardous chemical when evaluated according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	%	ACGIH TWA	OSHA PEL	OSHA STEL	SKIN
Ethylene Glycol	107-21-1	30 – 60.00	100 mg/m3	125 mg/m3	NE	NE
Sodium Nitrile	7632-00-0	10 – 30.00	1 mg/m3	1 mg/m3	3 mg/m3	NE
De-ionized Water	7732-18-5	1 – 46.99	NE	NE	NE	NE

There are no additional ingredients present which the current knowledge and in concentration applicable, are classified as hazardous to health or environment and hence require reporting in this section.

ABBREVIATIONS:
NE: None Established NA: Not Applicable (1): NIOSH Guidelines (2) “Manufacturer Recommendation” Short Term Exposure Limit ND: Not Determined

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.
Ingestion:	DO NOT take internally. If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.
Note to Physician:	IMMEDIATE TREATMENT IS EXTREMELY IMPORTANT! The preferred treatment is immediate transportation to a medical facility and use of appropriate treatment including possible administration of activated charcoal, gastric lavage and or gastric aspiration. If none of the above are immediately available and a delay of more than one hour is anticipated before such medical attention can be obtained, induction of vomiting may be appropriate using IPECAC syrup (concentrated if there are any signs of CNS depression). This should be considered on a case by case basis following specialist advice. Specific other treatments of acidosis and haemodialysis. Seek specialist advice without delay.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point:	Typical min. 130°C (266°F) by Pensky-Martens Closed Cup, ASTM D 93
Upper Flammable Limit:	15% vol.
Lower Flammable Limit:	3% vol.
Extinguishing Media:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Special Fire Fighting Procedures:	Do not use water in a jet. Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.
Unusual Fire and Explosion Hazards:	Not determined
By-products of Combustion:	Hazardous combustion products may include: a complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.
Auto-ignition Temperature:	> 200°C (392°F)
Explosion Data:	Not determined. Care should always be exercised in dust/mist areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Procedures (Land):	Use appropriate containment to avoid contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
Spill Procedures (Water):	Shut off source of leak if safe to do so. Dike and contain spill.
Waste Disposal Method:	For large liquid spills (> 1 drum), transfer by mechanical means such as a vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
Additional Advice:	U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity to National Response Center at (800) 424-8802. Local authorities should be advised if significant spillage cannot be contained.

SECTION 7 HANDLING AND STORAGE

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.
Unsuitable Material:	Zinc. Avoid contact with galvanized materials
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. Storage temperature: 0 – 50^{o}C (32 – 122^{o}F)
Additional Information:	Polyethylene containers should not be exposed to high temperature because of possible risk of distortion.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Controls:	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
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 contaminates may occur. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapors [(boiling point > 65^{o}C (149^{o}F)]
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:	Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
Other:	Minimize release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor	May be dyed red liquid. Liquid at room temperature.
Gravity by ASTM D 1298**:**	
Specific Gravity @ 15.6^{o}C	1.100
pH	Not applicable
Water Solubility:	Completely soluble
Kinematic Viscosity:	30 cSt @40^{o}C:
Boiling Point:	Expected to be > 100°C / 212°F
Pour Point (°C /°F)**:** by ASTM D 97	-30°C / -22°F

SECTION 10 STABILITY AND REACTIVITY

Stability:	Material is stable at room temperature and pressure.
Conditions and Materials to Avoid:	Extremes of temperature and direct sunlight. Strong oxidizing agents.
Decomposition Products:	Hazardous decomposition products are not expected to form during normal storage.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity:	Classified as harmful by the European Commission. There is a marked difference in acute oral toxicity between rodents and man, man being more susceptible than rodents. The estimated fatal dose for man is 100 milliliters or ½ cup. This material has also been shown to be toxic and potentially lethal by ingestion to cats and dogs. Ingestion may cause drowsiness and dizziness.
Accute Dermal Toxicity:	Expected to be of low toxicity: LD50 > 2000 mg/kg, Rabbit
Sensitization:	Not expected to be a skin sensitizer.
Repeated Dose Toxicity:	Kidney; can cause kidney damage.
Mutagenicity:	Not considered a mutagenic hazard.
Carcinogenicity:	Components are not known to be associated with carcinogenic effects.
Reproductive and Developmental Toxicity	Causes fetotoxicity in animals; considered to be secondary to maternal toxicity.

Material	Carcinogenicity Classification
Ethanediol	ACGIH Group A4: Not classified as a human carcinogen.
Sodium Molybdate	ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicity:	Expected to be practically non-toxic: LC/EC/IC50 > 100 mg/L (to aquatic organisms).
Environmental Fate:	Dissolves in water. If product enters soil, it will be highly mobile and may contaminate ground water.
Persistence/Degradability:	Readily biodegradable
Bio-accumulation:	Not expected to bio-accumulate significantly.
Other Adverse Effects:	Not expected to have ozone depletion potential, photo chemical ozone creation potential or global warming potential.

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.
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.
IMDG Information	Not determined
IATA Information	Not determined

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:	8495 lbs.
Due to:	Not applicable
For moving sources - reportable quantity:	5000 lbs.
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: This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Pennsylvania Right to Know: Ethanediol (107-21-1)

New Jersey Right to Know: Ethanediol (107-21-1)

SECTION 16 OTHER INFORMATION

Glossary: **ACGIH** – American Conference of Governmental Industrial Hygienists; **ANSI** – American National Standards Institute; **Canadian TDG** – Canadian

Transportation of Dangerous Goods; **CAS** – Chemical Abstract Service; **Chemtrec** – Chemical Transportation Emergency Center (US); **CHIP** – Chemical Hazard Information and Packaging; **DSL** – Domestic Substances List; **EC** – Equivalent Concentration; **EH40 (UK)** – HSE Guidance Note EH40 Occupational Exposure Limits; **EPCRA** – Emergency Planning and Community Right-To-Know Act; **HMIS** – Hazardous Material Information Service; **LC** – Lethal Concentration; **LD** – Lethal Dose; **NFPA** – National Fire Protection Association; **OEL** – Occupational Exposure Limits; **OSHA** – Occupational Safety and Health Administration, US Department of Labor; **PEL** – Permissible Exposure Limit; **SARA (Title III)** – Superfund Amendments and Reauthorization Act; **SARA 313** – Superfund Amendments and Reauthorization Act, Section 313; **SCBA** – Self-Contained Breathing Apparatus; STEL – Short Term Exposure Limit; **TLV** – Threshold Limit Value; **TSCA** – Toxic Substances Control Act Public Law 94-469; **TWA** – Time Weighted Value; **US DOT** – US Department of Transportation; **WHMIS** – Workplace Hazardous Materials Information System.

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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, Martin Lubricants; A Division of Martin Operating Partnership L.P., must rely upon information provided by the material manufacturers or distributors.

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Safety Data Sheet conforms to ANSI Z400.1-2004 Standard - United States