

MATERIAL SAFETY DATA SHEET

BLUE RIDGE EXTENDED LIFE COOLANT/ANTIFREEZE

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Blue Ridge Coolant/Antifreeze Extended Life
SYNONYMS: Ethylene Glycol (EG), Monoethylene Glycol (MEG)
PRODUCT CODES: BRELC

MANUFACTURER: Holston Environmental Services, Inc.
ADDRESS: 1000 Business Park Drive
Chattanooga, TN 37419

EMERGENCY PHONE: (800) 222-4530
OTHER CALLS: (423) 899-7300
FAX PHONE: (423) 899-7373

CHEMICAL NAME: 1,2-Ethanediol
CHEMICAL FAMILY: Glycols

PRODUCT USE: Automotive Engine Coolant/Antifreeze, heat transfer fluid.

SECTION 1 NOTES: Do not use in the manufacture or preparation of foods or pharmaceuticals. Do not use in aircraft de-icing applications. Glycols are not intended for the production of theatrical or artificial smoke.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>
Ethylene Glycol	107-21-1	25 - 100	25 - 100
Potassium 2-Ethylhexanoate	3164-85-0	15 - 50	15 - 50
Potassium Tolytriazole	64665-53-8	1 - 5	1 - 5

SECTION 2 NOTES: There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: **WARNING! IRRITATING TO SKIN, EYE AND RESPIRATORY TRACT. DO NOT INGEST. HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. POSSIBLE BIRTH DEFECT HAZARD – CONTAINS MATERIAL THAT MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA.**

ROUTES OF ENTRY: Dermal Contact. Eye Contact. Inhalation. Ingestion.

POTENTIAL ACUTE HEALTH EFFECTS

EYES: May cause eye irritation.
SKIN: May cause skin irritation.
INGESTION: May be harmful if swallowed.
INHALATION: May cause respiratory tract irritation.

CHRONIC HEALTH HAZARDS: No known significant effects or critical hazards. May cause adverse reproductive effects based on animal data. Contains material that may be harmful to the developing fetus based on animal data. Overexposure may result in Ethylene Glycol poisoning. Contact

MATERIAL SAFETY DATA SHEET

BLUE RIDGE EXTENDED LIFE COOLANT/ANTIFREEZE

your local Poison Control Center if you are exposed to significant levels of Ethylene Glycol or ingest Ethylene Glycol in any quantity.

MEDICAL CONDITIONS GENERALL AGGRAVATED BY EXPOSURE:

Neurological and cardiovascular disorders, diseases of the skin, eyes or respiratory tract, preexisting liver and kidney disorders.

SECTION 4: FIRST AID MEASURES

- EYES:** Check for and remove any contact lenses. Immediately flush eyes thoroughly with running water for several minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention.
- SKIN:** Start flushing with water while removing contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation, redness or a burning sensation develops and persists, obtain medical attention.
- INGESTION:** Do not attempt to give anything by mouth to an unconscious person. IMMEDIATELY contact local Poison Control Center. Vomiting should only be induced under the direction of a physician or Poison Control Center. Seek medical attention.
- INHALATION:** If inhaled, move to fresh air. If not breathing, give artificial respiration. If respiratory problems persist, obtain medical attention IMMEDIATELY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person needs to be kept under surveillance for 48 hours.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: 15.3
(% BY VOLUME) **LOWER: 3.2**

FLASH POINT:

F: 231
C: 111

AUTOIGNITION TEMPERATURE:

F: 748
C: 398

NFPA HAZARD CLASSIFICATION

HEALTH: **FLAMMABILITY:** **REACTIVITY:**
OTHER:

HMIS HAZARD CLASSIFICATION

HEALTH: 1 **FLAMMABILITY:** 0 **REACTIVITY:** 0
PROTECTION: 0

EXTINGUISHING MEDIA:

Use carbon dioxide or dry chemical media for small fires. If only water is available, use in the form of a fog. Use media appropriate for surrounding fire and/or materials.

SPECIAL FIRE FIGHTING PROCEDURES:

Fire exposed containers should be kept cool by spraying with water to reduce pressure. No part of a container should be exposed to temperature above 50° C. Used self contained breathing apparatus and protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Not normally a fire hazard. Water content of product prevents ignition. Do not direct a solid stream of foam into hot, burning pools. This may cause splattering and increase fire intensity. Closed containers exposed to heat may explode. Spilled material may cause floors and and contact surfaces to become slippery.

MATERIAL SAFETY DATA SHEET

BLUE RIDGE EXTENDED LIFE COOLANT/ANTIFREEZE

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products may include the following
Carbon Dioxide
Carbon Monoxide
Nitrogen Oxides
Metal Oxide/Oxides

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the spill is reportable or could adversely affect the environment.

Containment and Clean Up: Recoverspilled material on non-combustible absorbents, such as sand or vermiculite and place in covered containers for disposal. Contain discharge by constructing dykes or applying inert absorbent. Dispose of via licensed waste disposal contractor.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Use appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where material is handled, stored and processed. Workers should wash hands and face before eating, drinking or smoking. Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area away from incompatible materials. Do not store in unlabeled containers.

OTHER PRECAUTIONS: Store in accordance with local regulations. Use appropriate containment to avoid environmental contamination.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Recommendations in this section indicate the type of equipment, which will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective equipment.

ENGINEERING CONTROLS: No special ventilating requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

RESPIRATORY PROTECTION: No specific guidelines available. A NIOSH/MSHA approved air purifying respirator equipped with organic vapour cartridges for concentrations up to 1000 ppm. An air supplied respirator if concentrations are higher or unknown. If while wearing a full facepiece respirator, you experience eye irritation, leave the area immediately. Check to make sure the respirator to face seal is still good. If it is, replace the filter, cartridge or canister. If the seal is no longer good, you may need a new respirator.

EYE PROTECTION: Use full face-shield or chemical safety goggles when there is potential for contact. Contact lenses should not be worn when working with this material.

MATERIAL SAFETY DATA SHEET
 BLUE RIDGE EXTENDED LIFE COOLANT/ANTIFREEZE

SKIN PROTECTION: Gloves and protective clothing made from PVC, butyl rubber, natural rubber, viton, neoprene or nitrile rubber should be impervious under conditions of use. Prior to use, user should confirm impermeability. Discard contaminated gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear an impermeable apron and boots. Locate safety shower and eyewash station close to chemical handling area. Take all precautions to avoid personal contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Yellow
ODOR: Mild
PHYSICAL STATE: Liquid
pH AS SUPPLIED: 9
BOILING POINT: 240F
FREEZING POINT: -40F
SPECIFIC GRAVITY (H2O = 1): 1.15
EVAPORATION RATE: Not Available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (con't)

SOLUBILITY IN WATER: 100% soluble in water
PERCENT SOLIDS BY WEIGHT: None
PERCENT VOLATILE:
 BY WT/ BY VOL @
 F:
 C:
VOLATILE ORGANIC COMPOUNDS (VOC): Not available
 WITH WATER: LBS/GAL
 WITHOUT WATER: LBS/GAL
VISCOSITY: 21 CpS (20°C)

SECTION 10: STABILITY AND REACTIVITY

STABILITY: This product is stable.
CONDITIONS TO AVOID (STABILITY): High Temperature, sparks, open flames and all other sources of ignition. Temperatures above 165°C)
INCOMPATIBILITY (MATERIAL TO AVOID): Strong oxidizers. Strong Acids, Strong Bases.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Thermal decomposition products are toxix and may include oxides of carbon.
HAZARDOUS POLYMERIZATION: Will not occur.
CONDITIONS TO AVOID (POLYMERIZATION): N/A

MATERIAL SAFETY DATA SHEET
BLUE RIDGE EXTENDED LIFE COOLANT/ANTIFREEZE

SECTION 10 NOTES: Not normally a fire hazard. Water content of product prevents ignition.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: The ingredient(s) of this product are not classed as carcinogenic by ACGIH, IARC, OSHA or NTP. Birth defects were seen in the offspring of mice who were administered sodium 2-ethylhexanoate via intraperitoneal injection during pregnancy.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: May be harmful to aquatic life. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds or rivers. Bioconcentration potential is low. Biodegradation under aerobic static laboratory conditions is high. Biodegradation may occur under both aerobic and anaerobic conditions. Degradation is expected in the atmospheric environment within days to weeks.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of used antifreeze according to federal, state and local regulations. Do not dispose in storm sewers, drains or onto the ground. Contact a licensed environmental waste disposal company to properly manage this product.

RCRA HAZARD CLASS: None

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: Not Regulated
HAZARD CLASS: Not Regulated
ID NUMBER: Not Regulated
PACKING GROUP: Not Regulated
LABEL STATEMENT: Not Regulated

WATER TRANSPORTATION

PROPER SHIPPING NAME: Non Regulated
HAZARD CLASS: Non Regulated
ID NUMBER: Non Regulated
PACKING GROUP: Non Regulated
LABEL STATEMENTS: Non Regulated

AIR TRANSPORTATION

PROPER SHIPPING NAME: Non Regulated
HAZARD CLASS: Non Regulated
ID NUMBER: Non Regulated
PACKING GROUP: Non Regulated
LABEL STATEMENTS: Non Regulated

OTHER AGENCIES: Non Regulated

MATERIAL SAFETY DATA SHEET
BLUE RIDGE EXTENDED LIFE COOLANT/ANTIFREEZE

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT):All constituents in this product are included on the TSCA inventory.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No products found.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): No products founds.

311/312 HAZARD CATEGORIES: No products were found.

313 REPORTABLE INGREDIENTS: No products were found.

STATE REGULATIONS:

California Prop. 65: This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

INTERNATIONAL REGULATIONS:

The following components of this product appear on the European Inventory of Existing Commercial Chemical Substances: Ethylene Glycol.

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

Label Requirements: IRRITATING TO SKIN, EY AND RESPIRATORY TRACT.

HAZARDOUS LABELING:

NFPA: 1, HEALTH: 1, FIRE: 0, REACTIVITY: 0

PREPARATION INFORMATION:

July 1, 2013

DISCLAIMER:

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Holston Environmental Services, Inc. will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.