MATERIAL SAFETY DATA SHEET

Eco-Cool Roof 5000

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Eco-Protective Products, LLC
PRODUCT NAME: Eco-Cool Roof 5000

DISTRIBUTED BY
Eco-Protective Products, LLC
3535 Peachtree Rd. NE Suite 520-643
Atlanta, GA 30326
(770) 757-3713

24 HOUR EMERGENCY TELEPHONE NUMBER
Chemtrec: 800-424-9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Ethylene Glycol	2	107-21-1
Zinc Oxide	3	1314-13-2
Expanded Perlite	6	93763-70-3

The other chemicals in this product are present below their *de minimus* or not OSHA hazardous per 29 CFR 1910.1200.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Liquid. Various colors, including but not limited to: white, black, gray.

IMMEDIATE CONCERNS: May cause skin, eye and respiratory tract irritation.

POTENTIAL HEALTH EFFECTS

EYES: Mild to moderate eye irritant.

SKIN: Mild to moderate skin irritant.

INGESTION: May cause irritation of the digestive tract. May cause central nervous system depression. Ingestion of larger volumes may cause kidney and liver injury due to glycol content. (see Section 11)

INHALATION: Breathing small amounts of this material during normal handling is not likely to cause harmful effects. With inhalation of vapors or mist at concentrations above the TLV, respiratory tract irritation can occur. (nose, throat, lungs)

ROUTES OF ENTRY: Inhalation, skin contact, eye contact, ingestion.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Seek immediate medical attention.

SKIN: Remove contaminated clothing. Wash affected areas thoroughly with soap and water. Wash clothing thoroughly before reuse. For severe exposure, seek medical attention immediately. For lesser exposure, seek medical attention if swelling or redness occurs, or if irritation persists after being washed.

INGESTION: DO NOT INDUCE VOMITING If the individual is conscious, rinse mouth with water and give 1 to 2 cups of water to drink. Never give anything by mouth to a drowsy or unconscious person. Seek immediate medical attention.

INHALATION: Remove individual from exposure, keep warm and at rest. If dizzy or shows signs of respiratory distress, seek immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Not applicable.

EXTINGUISHING MEDIA: This is a water-based product and will not support combustion. Use agent most appropriate to extinguish surrounding fire. On dried product use water, foam, carbon dioxide or dry chemical extinguishers.

HAZARDOUS COMBUSTION PRODUCTS: During a fire, irritating and toxic gases are formed.

FIRE FIGHTING PROCEDURES: Isolate fuel supply from fire. Use water spray to cool fire-exposed surfaces and containers. Fire fighters should wear self-contained breathing apparatus in addition to emergency fire fighting protective clothing.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Clean up spills wearing proper personal protective equipment. (See section 8) Absorb with dry chemical absorbent, earth, sand, or any other inert material. Place in a chemical waste container.

LARGE SPILL: Evacuate and ventilate the area. Create a dike or trench to contain materials. Prevent entry into waterways, sewers, basements or confined areas. Clean-up personnel should wear appropriate personal protection equipment. (see section 8) May be a slipping hazard. Absorb with dry chemical absorbent, earth, sand, or any other inert material. Place in a chemical waste container. Wash residues from area with soap and water and rinse. Contaminated water should be retained and not allowed to flow into ground or surface water.

COMMENT: Dispose of by any standard method of disposal in accordance with good industrial practice and in compliance with federal, state, and local environmental protection regulations.

7. HANDLING AND STORAGE

HANDLING: Wear proper personal protective equipment. Use in a well ventilated area. Avoid physical damage to containers. Practice good hygiene procedures.

STORAGE: Prevent exposure to high heat. Prevent from freezing. Keep containers sealed in order to avoid contamination. Do not reseal if contaminated. Avoid physical damage to containers. Practice good hygiene procedures.

STORAGE TEMPERATURE: 40 °F – 100 °F

SHELF LIFE: 6 months

SPECIAL SENSITIVITY: Material is water-based and can freeze at temperatures below 32 °F.

COMMENT: See Section 10 for more information on precautions concerning storage and handling of this material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

CHEMICAL NAME		EXPOSURE LIMITS OSHA PEL ppm	OSHA PEL mg/m³	ACGIH TLV ppm	ACGIH TLV mg/m³	SUPPLIER OEL ppm	SUPPLIER OEL mg/m³
Ethylene Glycol	**TWA**	NL	NL	NL	NL		
	STEL			50*	127*		
Zinc Oxide	**TWA**		5^		2^		
	STEL				10^		
Expanded Perlite	**TWA**		10^		15 (T)		

KEY:
NL = Not Listed
* = Ceiling
^ = Respirable fraction
T = Total dust

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear chemical goggles.

SKIN: Use impervious gloves.

RESPIRATORY: NIOSH approved organic vapor respirator when exposed to vapor from heated material or if ventilation is inadequate.

WORK HYGIENIC PRACTICES: Follow good normal hygiene practices. Avoid contact with skin. Avoid eating, drinking, or smoking while using this product. Wash hands thoroughly after use.

OTHER RECOMMENDED PROTECTIVE EQUIPMENT: Safety showers and eye wash stations.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
COLOR: Various colors, including but not limited to: white, black, gray.
% VOLATILE: 40 at 74 ^{o}F
BOILING POINT: 212 ^{o}F
FREEZING POINT: 32 ^{o}F
EVAPORATION RATE: Slower than ether
SPECIFIC GRAVITY: 0.96 (water = 1) at 74 ^{o}F
VISCOSITY: 5500 - 7000 Centipoise at 74 ^{o}F

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Temperature extremes. Container contamination.

STABILITY: Stable under recommended storage conditions.

POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes including zinc oxide.

INCOMPATIBLE MATERIALS: Strong acids, strong oxidizers.

11. TOXICOLOGICAL INFORMATION

	ORAL LD_{50} (rat)	DERMAL LD_{50} (rabbit)	INHALATION LC_{50} (rat)
Ethylene Glycol	4700 mg/kg	9500 uL/kg	
Zinc Oxide	7650 mg/kg		2500 mg/m^3 (mouse)

EYE EFFECTS: Mild to moderate eye irritant.

SKIN EFFECTS: Mild to moderate eye irritant.

CARCINOGENICITY
IARC: Not classified as a carcinogen.
NTP: Not classified as a carcinogen.
OSHA: Not classified as a carcinogen.
ACGIH: Not classified as a carcinogen.

COMMENTS: The lethal dose in adult humans for ethylene glycol is about 100 ml (1/3 cup). Swallowing may cause nausea, vomiting or diarrhea. Excessive exposure may cause CNS effects, cardiopulmonary effects (metabolic acidosis) and kidney failure. Toxicity follows 3-state progression: (1) involves central nervous system effects including paralysis of eye muscles, convulsions and coma. Metabolic acidosis and cerebral swelling may also occur. (2) involves cardiopulmonary system with symptoms of hypertension, rapid heart beat and possible cardiac failure. (3) involves severe kidney abnormalities including possible renal failure.

12. ECOLOGICAL INFORMATION

ECTOTOXICOLOGICAL INFORMATION:
Ethylene Glycol:
LC_{50} (Goldfish) 27500 – 41000 mg/L (96 hours)
LC_{50} (Bluegill/Sunfish) 27500 – 41000 mg/L (96 hours)
LC_{50} (Rainbow trout) 41000 mg/L (96 hours)
LC_{50} (Water flea) 46300 mg/L (48 hours)
EC_{50} (Phytobacterium phosphoreum) 620 mg/L (30 minutes, Microtox test)

COMMENTS: No testing for product as a whole.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be in accordance with local, state, provincial or national regulations.

EMPTY CONTAINER: Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

RCRA HAZARD CLASS: This material is not a hazardous waste under RCRA 40 CFR 261.

COMMENTS: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways. Refer to Section 6 for additional information.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)
TECHNICAL NAME: Aqueous dispersion of acrylic co-polymer latex.
DOT REGULATED: Not regulated for DOT transportation.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Immediate health hazard. Delayed health hazard.

313 REPORTABLE INGREDIENTS: Ethylene Glycol (CAS# 107-21-1), Zinc Oxide [listed as Zinc compounds] (CAS# 1314-13-2)

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Ethylene Glycol RQ: 5000 LBS

NATIONAL RESPONSE CENTER: Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the NRC (800-424-8802) and to your Local Emergency Planning Committee.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All ingredients are on TSCA inventory.

RCRA STATUS: Not hazardous if discarded in its purchased form. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).

CALIFORNIA PROPOSITION 65: This product contains chemicals known to the state of California to cause cancer or birth defects.

16. OTHER INFORMATION

HMIS RATING: Health - *2, Flammability - 1, Physical Hazard - 1

HMIS RATING NOTES: If present, the asterisk signifies a chronic health hazard.

Rating system: 0 = low hazard to 4 = high hazard

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KEY LEGEND INFORMATION:

ACGIH - American Conference of Governmental Industrial Hygienists

EPA - Environmental Protection Agency

IARC - International Agency for Research on Cancer

NTP - National Toxicology Program
OEL - Occupational Exposure Limit
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
STEL - Short Term Exposure Limit
TLV - Threshold Limit Value
TWA - Time Weighted Average

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