

Road King Green 50/50 Pre-Mixed



MATERIAL SAFETY DATA SHEET

Section 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product/Chemical Name: Road King Green 50/50 Pre-Mixed
Product Description: Ethylene Glycol Based Antifreeze
Chemical Family: Inhibited Ethylene Glycol
CAS Registry: Mixture
Manufacturer: Innovative Fluids, LLC
 916 Huber Drive
 Monroe, MI 48162
 734-241-5699

Section 2 COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO	WT. RANGE %	EXPOSURE LIMIT
Potassium hydroxide (45%)	1310-58-3	1-5%	2mg/m3 (CEILING)
Sodium Tolytriazole	64665-57-2	1-5%	Not applicable
Proprietary inhibitors	Not Applicable	<10%	Not applicable
Monoethanolamine	141-43-5	15-30%	8 mg/m3
Sodium Tetraborate Decahydrate	1330-96-4	<5%	5mg/m3 (TLV AGCIH)
Water	7732-18-5	Balance	Not applicable

Section 3 HAZARDOUS IDENTIFICATION

Health: 2
Flammability: 0
Reactivity: 0
Special: None
 0 = minimal 1= slight 2=moderate 3= serious 4= severe

Hazard Rating	
	HMIS
Health:	2
Flammability:	0
Reactivity:	0
Personal Protection:	E
†Sec. 8	

Route(s) of Entry

Inhalation:	Airborne concentrations of mist or spray may cause damage to the upper respiratory tract and even to lung tissue. Vapor/fumes are not generated at significant levels until temperature is elevated.
Skin:	Destructive to tissues contacted and produces severe burns. The severity of damage and extent of irreversibility increases with length of contact time.
Ingestion:	Swallowing can cause severe burns and tissue perforation of mucous membranes of the mouth, throat, esophagus and stomach.
Eyes:	Destructive to eye tissue on contact.
Target Organs:	None known
Effects of overexposure:	This solution of antifreeze inhibitors is an alkaline irritant and corrosive with a pH of 12-14. Prolonged contact can be destructive to tissue. Contact with the eyes may damage delicate eye tissue. Ingestion will cause mouth, throat and gastrointestinal irritation. Sodium nitrite can cause cyanosis, headache, dizziness, nausea and methemoglobinemia. Inhalation of harmful levels of vapors is unlikely due to the relatively low vapor pressure and the relatively low concentrations of ingredients.
Effects of overexposure:	Acute: The high pH of this product makes it harmful to all body tissue with which it comes into direct contact. The signs of local exposure usually include areas of superficial destruction of the skin, often painful and/or primary irritant dermatitis. Chronic: None known.
Medical Conditions Generally Aggravated by Long-Term Exposure:	None expected.
Chronic Effects:	None known
Carcinogenicity	
NTP:	None known
IARC Monographs:	None known
OSHA Regulations:	None known
ACGIH	None known

Section 4

FIRST AID MEASURES

Emergency and First Aid Procedures:

Eye contact:	Flush eyes with large amounts of water for 15 minutes. If irritation persists, get medical attention.
Skin contact:	Wash affected area thoroughly with soap and water. Remove contaminated clothing, rings, etc.
Ingestion:	Toxic if swallowed. Induce vomiting immediately and seek medical attention.
Inhalation:	Remove to fresh air. If breathing has stopped, start artificial respiration. Seek medical attention.
Note to Physicians:	Treat symptomatically
Special Precautions/ Procedures:	None known

Section 5**FIRE-FIGHTING MEASURES**

Unusual Fire Fighting procedures: None required; non-flammable product

Flash Point: None detected

Flash Point Method: Pensky Martens

Burning Rate: Does not burn

Autoignition Temperature: Not available

Flammable limits in air (% by volume):

LEL: Not applicable

UEL: Not applicable

Flammability Classification: Not flammable

Extinguishing Media: Water, fog, foam, CO₂, dry chemical

Unusual Fire or Explosion Hazards:

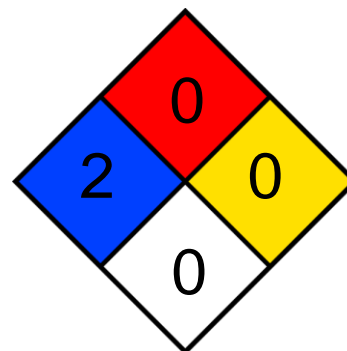
Closed containers may rupture or explode due to steam pressure build-up when exposed to extreme heat. Water may be used to cool closed containers.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Unusual Fire Fighting procedures:

Full protective equipment including self-contained breathing apparatus should be used when Additive Inc. Antifreeze Additive Solution is present during a fire. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Seek medical attention.

**Section 6****ACCIDENTAL RELEASE MEASURES**

Spill/Leak Procedures: Recover usable material by convenient method; residual may be removed by wipe or wet mop.

Small Spills: Small spills should be absorbed with a suitable inert material (sand, earth, clay, etc.). Remove the absorbed material and place in an appropriate chemical waste container for disposal.

Large Spills: For large spills, dike and pump into suitable containers. Clean up residual water.

Containment: For large spills, dike far ahead of liquid spill for later disposal.

Regulatory Requirements: Follow applicable Federal, State and Local regulations.

Section 7

HANDLING AND STORAGE

- Handling Precautions** Wear impermeable gloves and other protective clothing to avoid prolonged or repeated skin contact. When handling, wear eye protection.
- Storage Requirements:** Keep containers tightly closed when not in use. Store only in containers that are resistant to alkaline solutions with a pH of 12-14.

Section 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Controls
Ventilation:** Provide general or local exhaust ventilation systems.
- Administrative Controls
Respiratory Protection:** If personal exposure cannot be controlled below applicable exposure limits by ventilation, wear respiratory devices approved by NIOSH/MSHA, for protection against organic vapors, dust, fumes and mists.
- Ventilation:** Normal to maintain exposure below TLV
- Protective Clothing
/Equipment:** Where skin contact may occur, chemical-impervious gloves should be worn. Use chemical goggles or full face shield when the danger of splashing exists. Rubber apron or similar protective clothing to prevent contact with skin or clothes.
- Work and Hygienic Practices:** Wash or rinse hands before touching eyes or contact lenses, and before eating.
- Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
- Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
- Comments:** Avoid contact with skin, eyes and clothing. Do not take internally. Clean up spills immediately. Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9

PHYSICAL AND CHEMICAL PROPERTIES

- Appearance and odor:** Mild odor, may contain dye in one of several colors.
- Boiling Point (760 mm Hg):** 324 °F
- Freezing/Melting Point:** -34 °F
- Specific Gravity (water =1):** 1.110-1.125
- Vapor Density (air =1):** 1.8
- Percent Volatile by Volume:** NIL
- Refractive Index:** 1.4300
- Solubility in Water (% by wt):** Soluble
- Vapor Pressure (at 20°C):** 18mm Hg.
- pH:** 8.8-10.0
- Viscosity SUS @ 100°F** Less than 20cst

Section 10**STABILITY AND REACTIVITY**

Stability:	Stable
Polymerization:	Will not occur
Chemical Incompatibilities:	Strong oxidizing agents, strong acids
Conditions to Avoid:	Strong oxidizing agents, strong acids.
Hazardous decomposition products:	If involved in a fire the following decomposition products may be generated: Carbon dioxide, carbon monoxide, nitrogen oxides, hydrogen cyanide (possible in reducing atmospheres).

Section 11**TOXICOLOGICAL INFORMATION**

Eye Effects:	Destructive to eye tissue on contact.
Skin Effects:	Destructive to tissues contacted and produces severe burns. The severity of damage and extent of irreversibility increases with length of contact time.
Acute Inhalation Effects:	Airborne concentrations of mist or spray may cause damage to the upper respiratory tract and even to lung tissue. Vapor/fumes are not generated at significant levels until temperature is elevated.
Acute Oral Effects:	Swallowing can cause severe burns and tissue perforation of mucous membranes of the mouth, throat, esophagus and stomach.
Chronic Effects:	None known
Carcinogenicity:	Neither product nor its ingredients are listed by IARC, NTD or OSHA
Mutagenicity:	Not mutagenic
Teratogenicity:	Not Teratogenic

Section 12**ECOLOGICAL INFORMATION**

Ecotoxicity:	Not determined
Environmental Fate:	Decomposes to carbon, oxygen, nitrogen, phosphate salts and water.
Environmental Degradation:	Biodegradable
Soil Absorption/Mobility:	Not determined

Section 13**DISPOSAL CONSIDERATIONS**

Waste disposal method:	Sanitary landfill or incinerate in approved facilities in accordance with local, state and federal regulations.
Disposal Regulatory Requirements:	Shipments of waste material may be classified as hazardous and subject to manifesting requirements through applicable regulatory agency.
Container Cleaning and Disposal:	Containers should be cleaned of residual product before disposal, and disposed of in accordance with all applicable laws and regulations.

Section 14**TRANSPORT INFORMATION**

DOT Shipping Name: Corrosive Liquid, Basic, Inorganic, N.O.S., (Monoethanolamine, Potassium Hydroxide), 8, UN3266, PGII

Shipping Symbols:



Hazard Class: 8
DOT Identification No.: UN 3266
Packing Group: II
Label: Danger: corrosive; causes burns and irritation to skin and eyes
DOT Class 55

Packaging Authorizations

a) **Exceptions:** Not applicable
b) **Non-bulk Packaging:** Not applicable
c) **Bulk Packaging:** Not applicable

Quantity Limitations

a) **Passenger, Aircraft, or Railcar:** One liter
b) **Cargo Aircraft Only:** One liter

Vessel Stowage Requirements

a) **Vessel Stowage:** Not applicable
b) **Other:** Not applicable

Section 15**REGULATORY INFORMATION****EPA Regulations**

RCRA Hazardous Waste Number and RCRA

Hazardous Waste Classification: Not applicable

CERCLA Hazardous Substance and CERCLA

Reportable Quantity: Not applicable

SARA Toxic Chemical

and SARA EHS: Reportable under SARA Title III (40 CFR, Part 370)

OSHA Regulations: Must comply with OSHA standard 29 CFR 1910.1200 (employee right to know)**Section 16****OTHER INFORMATION****Prepared By:** Innovative Fluids, LLC.**Additional Hazard Rating Systems:** None**Disclaimer: THE INFORMATION GIVEN HEREIN IS GIVEN IN GOOD FAITH AND FROM SOURCES WE BELIEVE RELIABLE. BUT NO WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS IS MADE.**

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This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not apply.

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Consult Innovative Fluids, LLC for further information.