

ProGuard RV Antifreeze (all concentrations)

MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product name: RV Antifreeze
Synonyms: Propylene Glycol – RV Antifreeze
CAS No: 57-55-6
Molecular weight: 76.09

Distributor: Lyden Oil Company
3711 LeHarms Road
Youngstown, Ohio 44515

Emergency Telephone Number: 330-792-1100 office hours, 800-362-9410 after office hours

Section 2: Composition / Information on Ingredients

Ingredient	CAS Number	Approx. %	Exposure Limits
Propylene Glycol (used in RV concentrate)	57-55-6	97-98%	None
Proprietary Food Grade Additive (RV conc)	-	2-3%	None
Propylene Glycol (-50 burst)	57-55-6	31-34%	None
Propylene Glycol (-100 burst)	57-55-6	62-67%	None

Section 3: Hazards Identification

Emergency Overview

Health Hazard: May cause irritation to skin and eyes.
Fire & Explosion: Does not readily ignite. Flammability and Reactivity Rating is: 1 Slight

Potential Health Effects

Eyes: May cause transitory stinging and tearing.
Skin: Mild irritant and defatting agent, especially on prolonged contact.
Inhalation: No adverse health effects via inhalation.
Ingestion: Relatively non-toxic. Ingestion of sizable amount (over 100 ml) may cause some gastrointestinal upset and temporary central nervous system depression. Effects appear more severe in individuals with kidney problems.
Chronic Exposure: Lactic acidosis, stupor and seizures have been reported following chronic ingestion.
Aggravation of Pre-existing Conditions: Kidney disorders.

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Section 4: First Aid Measures

Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
Skin:	Remove contaminated clothing and shoes. Then wash with soap and water for at least 15 minutes.. Clean contaminated clothing and shoes before reuse. Get medical attention if irritation develops or persists.
Inhalation:	Remove to fresh air. Not expected to require first aid measures.
Ingestion:	Not expected to require first aid measures. Give several glasses of water to drink to dilute. If large amounts swallowed, call a physician. ONLY induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.
Note to Physician:	In case of ingestion, monitor for acidosis and central nervous system changes. Exposed persons with previous kidney dysfunction may require special treatment.

Section 5: Fire Fighting Measures

Flash Point:	210 F° @ (99C) CC.
Auto ignition:	700 F°
Flammability:	Flammable limits in air % by volume Lower: 2.6% Upper: 12.5% Material can support combustion.
Fire & Explosion:	Containers may explode when involved in a fire.
Extinguishing Media:	Dry chemical foam, water or carbon dioxide.
Fire Fighting Instructions:	In the event of a fire, cool exposed equipment with water spray until well after fire is out. Do not scatter spilled material with high-pressure water streams. Dike fire-control water for later disposal. Self-contained breathing apparatus (SCBA) and firefighter's full protective clothing should be worn. Toxic gases and vapors may be released in a fire.

Section 6: Accidental Release Measures

Ventilate area. Stop the source of the leak. Wear appropriate personal protective equipment as specified in section 8. Contain the spill and clean up using sorbent materials. Dispose of in accordance with local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater, or soil. Contain and recover liquid when possible. Do not flush to sewer.

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Section 7: Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

Section 8: Exposure Control / Personal Protection Information

Airborne Exposure Limits:

AIHA Workplace Environmental Exposure Level (WEEL): Vapor and Aerosol = 50 ppm;

Aerosol only = 10 mg/m³

Engineering Controls:

A system of local and/or general exhaust is recommended if handling at elevated temperatures or if it is handled in such a manner as to cause mist or vapors to form, to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Protection:

If exposure limit is exceeded, use appropriate respirator. Use Safety glasses with side shields or chemical goggles. Maintain eye wash fountain and quick drench facilities in work area. Wear protective gloves and clean body-covering clothing.

Respiratory protection is normally not required except in emergencies or when the exposure limit is exceeded. Select the appropriate NIOSH-approved organic vapor and particulate air-purifying respirator, self-contained breathing apparatus, or air supplied respirators in situations where there may be potential for overexposure. Warning: Air-purifying respirators do not protect workers in oxygen deficient atmospheres.

Section 9: Physical and Chemical Properties

Appearance:

Clear – Pink - Red

Odor:

Mild

Vapor Pressure:

0.129 mm Hg @ 77 °F

Vapor Density:

2.6 (Air =1)

Water Solubility:

Miscible in water

Viscosity:

N/A

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Physical State:	Liquid – clear Pink - Red
Boiling Point:	325 – 340 Deg. F
Specific Gravity:	1.03 – 1.075
pH (50/50) Deg F	8.5-10.0
Reserve Alkalinity (ml):	7.5 – 8.5

Section 10: Stability and Reactivity

Conditions to Avoid:	Stable under normal conditions of use and storage. Avoid Heat, flames, ignition sources, and incompatibles.
Incompatibility:	May react with strong oxidizers.
Hazardous Decomposition:	Carbon dioxide and carbon monoxide may form when heated to decomposition. Aldehydes or lactic, pyruvic or acetic acids may also be formed when decomposed.
Hazardous Polymerization:	Should not occur.

Section 11: Toxicological Information

Oral rat LD50: 20 g/kg; skin rabbit LD50: 20.8 g/kg;	
Irritation – eye rabbit/ Draize: 500 mg/24 H, mild.	
Investigated as a mutagen and reproductive effector.	
Propylene Glycol:	Not a Known or Anticipated NTP Carcinogen. IARC Category: NONE.

Section 12: Ecological Information

Environmental Fate:	When released into the soil, this material is expected to readily biodegrade. It also has the potential to leach into the groundwater. When released into water this material is expected to readily biodegrade. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. In air, this material is expected to have a half-life between 1 and 10 days.
Environmental Toxicity:	No information found.

Section 13: Disposal Considerations

Special Instructions:	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or
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contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14: Transport Information

Not DOT regulated.

Section 15: Regulatory Information

United States Regulations

TSCA Inventory Listing:	No			
SARA 302 Status:	Propylene Glycol: No RQ, or TPQ			
SARA 311/312:	Acute: Yes	Chronic: No	Fire: No	Pressure: No
SARA 313 Chemicals:	No			

Section 16: Other Information

Hazard Ratings	NFPA
Health	0
Flammability	1
Reactivity	0

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This MSDS was prepared by Lyden Oil Company.

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