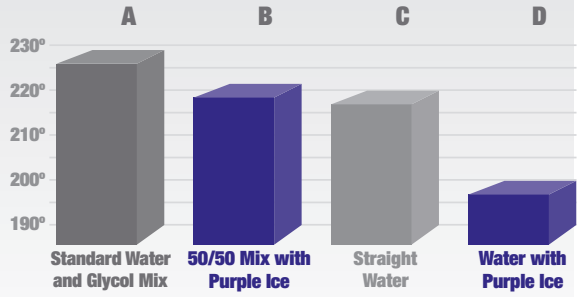
COOLANT ADDITIVE

# PURPLE ICE®

Purple Ice® is a high performance radiator conditioner. It's advanced 2-in-1 corrosion inhibitor and wetting agent provides year-round defense against corrosion. Purple Ice also reduces the surface tension of the radiator coolant to help reduce engine temperatures.


## REDUCES COOLANT TEMPERATURES

Extensive testing confirms Purple Ice reduces coolant temperatures better than comparable products while providing extra corrosion protection. For example, the average operating temperature of a 350 c.i.d. V8 engine (equipped with 160˚ thermostat) when dyno-tested with different coolants are:




A. Standard mix of water and glycol (antifreeze) — 228˚F
B. 50/50 water/glycol mix with Purple Ice added — 222˚F
C. Straight water (no corrosion protection) — 220˚F
D. Water with Purple Ice added — 200˚F

## PERFORMANCE ADVANTAGES

- Reduces surface tension of a coolant allowing more heat to transfer outside the radiator resulting in more horsepower
- Reduces hot spots in the engine and cylinder heads, reducing the possibility of engine failure
- Helps prevent overheating, keeps the system clean and extends the life of the water pump
- It's safe to use with water-only or antifreeze/water blends

## RECOMMENDED TREAT RATE*

- For use with antifreeze:
  1 oz. / quart of cooling system capacity
- For straight water applications:
  1.5 oz. / quart of cooling system capacity

*Minimum of 20% antifreeze is recommended in street-driven vehicles.

# Royal Purple, Inc.

## Material Safety Data Sheet

I. Product Name: **Purple Ice®**
Chemical Family: Cooling Water Treatment
Use: Engine coolant

II. Components:
- The precise composition of this product are proprietary. A more complete disclosure will be provided to a physician or nurse in the event of a medical emergency.
- All components of this product are listed on the U.S. TSCA inventory.
- This product contains no hazardous substances within the definition of OSHA Regulation 29 CFR 1910.1200.
- Royal Purple certifies that this product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form.

III. Main Hazards / Health Effects:
Eyes: May cause irritation.
Inhalation: Mist may irritate breathing passages making breathing difficult.
Ingestion: Poisonous
Skin: May cause irritation

IV. First Aid:
Eyes: Flush with water until all residual material is gone. If irritation persists, seek medical help.
Inhalation: Clear air passage. If respiratory difficulty continues, seek medical help.
Ingestion: Wash out mouth immediately. Do not induce vomiting. Consult physician.
Skin: Wash thoroughly with hand cleanser, followed by soap and water. Contaminated clothing should be washed before reuse.

V. Extinguishing Media:
Suitable: Foam, dry powder, Halon®, carbon dioxide, sand, earth and water.
Unsuitable: Other combustables.
Protective Equipment for Fire Fighting: Self-contained breathing apparatus.

VI. Accidental Release Measures:
Personal Precautions: Wear gloves and protective overalls.
Environmental Precautions: Do not allow it to enter drains.
Spillage: Contain spill and keep from entering waterways. Absorb on porous material. Large quantities can be pumped.

VII. Handling and Storage:
Handling: No special handling precautions necessary.
Storage: Do not store at elevated temperatures.

VIII. Exposure Control / Personal Protection:
Respiratory Protection: Respirator if misting.
Hand Protection: Protective gloves.
Eye Protection: Glasses.
Body Protection: Overalls.

IX. Physical and Chemical Properties:
Physical State: Liquid
Color: Purple
Odor: none
pH:11
Boiling Range / Point °F (°C): >220 (>104)
Pour Point °F (°C): -20 (-29)
Flash Point (COC) °F (°C): NA)
Autoignition Temperature °F (°C): NE

Evaporation Rate (Butyl Acetate): Negligible
Vapor Pressure (kPa): NE
Percent Volatiles: <12%
Density (g/cm$^3$): 1.04
Flammability: Not flammable.
OAR Value: UN
Water Solubility: yes
Vapor Density: NA

X. Stability and Reactivity:
Stability: Contains an oxidizing agent.
Conditions to Avoid: Extreme temperatures.
Materials to Avoid: Strong inorganic and organic acids, oxidizing agents.
Hazardous Decomposition Products: Gaseous nitrogen oxides

XI. Toxicological Information:
Acute Toxicity: Not known
Irritancy-Skin: Moderate
Skin Sensitization: Moderate
Subacute / Sub-chronic Toxicity: Not known
Genotoxicity: None known
Chronic Toxicity: None known

California Prop 65: N/A
Carcinogen: NTP: No
IARC: No
OSHA: No
EC Classification (67 / 548 / EEC): No
LD-50: not known
LC-50: Not applicable

XII. Ecological Information:
Possible Effects: not known
Behavior: Relatively well behaved. Bioaccumulation potential nil.
Environmental Fate: not known

XIII. Waste and Container Disposal:
Waste Disposal: Consider recycling. This product, as sold, does not meet the RCRA characteristics of a hazardous waste. Under RCRA, it is the responsibility of the user, at the time of disposal, to determine whether the product meets the RCRA criteria for hazardous waste. Contact a waste disposal company or local authority for advice.
Container Disposal: See waste disposal section listed above.

XIV. Transport Information:
DOT: Nonhazardous
UN No.: N/A
DOT: Nonhazardous

Air Transport (ICAO, IATA): Bulk Nonhazardous
Sea Transport (IMO, IMDG): Bulk Nonhazardous
Road and Rail Transport (ADR / RID): Bulk Nonhazardous

XV. Regulatory Information:
Labeling Information: None needed
EC Annex 1 Class.: N/A
R Phrases: N/A
SARA 311 / 312: None
S Phrases: S-3 keep cool

Ozone Depleting Chemicals: N/A

CERCLA: Nonhazardous
TSCA: All components are listed
WHMIS (Canada): Not regulated
Canadian DSL: All components are listed
40 CFR Part 372 (SARA Section 313): N/A
RCRA Hazard Class: Nonhazardous
TSCA 12B Components: None