

# Safety Data Sheet

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product Name:** BERKEBILE RV & MARINE PLUMBING ANTI-FREEZE -50°F BURST

**Synonyms/Generic Names:** 2+2 RV & MARINE Anti-Freeze

**Product Number:** B-RV55

**Product Use:** Anti-Freezing agent

**Manufacturer:** The Berkebile Oil Co. Inc.  
1216 Red Brant RD  
Somerset, PA 15501

**For More Information Call:** 814-443-1656 (Monday-Friday 8:00-4:30)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300

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## 2. HAZARDS IDENTIFICATION

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**OSHA Hazards:** Flammable liquid, Target organ effect, Irritant, Carcinogen

**Target Organs:** Nerves, Liver, Heart

**Signal Words:** Danger

**Pictograms**



**GHS Classification:**

Flammable liquids	Category 4
Skin irritation	Category 2
Eye irritation	Category 2B
Specific target organ toxicity-single exposure- respiratory system	Category 3

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H225	Highly flammable liquid and vapor
H315+H320	Causes skin and eye irritation
H335	May cause respiratory irritation

**Precautionary Statements:**

P210	Keep away from heat. No smoking.
P233	Keep container tightly closed.

P240	Ground container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use appropriate media to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

#### NFPA Ratings

Health	2
Flammability	3
Reactivity	0
Specific hazard	Not Available

#### HMIS Ratings

Health	2
Fire	3
Reactivity	0
Personal	Not Available

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Component	Weight %	CAS #
Ethyl Alcohol	40-50	64-17-5
Glycerin	0-10	56-81-5
Water	Balance	7732-18-5

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### 4. FIRST-AID MEASURES

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<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Skin</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable (and unsuitable) extinguishing media</b>	Flammable liquid. Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Cool containers with water.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section). Vapors can travel to a source of ignition and flash back. Containers may explode in a fire. Cool containers from a distance using water spray. SENSITIVE TO STATIC DISCHARGE.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Use with adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use.

### Conditions for safe storage, including any incompatibilities

Store in tightly closed, original containers in a cool, dry, well ventilated area. Store between 55-100°F for product stability. Do not store with strong oxidizing agents, strong acids, peroxides, aldehydes, halogens, ammonia, acid anhydrides or alkali metals.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Occupational exposure controls:** Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Ethyl Alcohol	1000 ppm 1900 mg/m <sup>3</sup>	REL	NIOSH
	1000 ppm 1900 mg/m <sup>3</sup>	PEL	OSHA
	1000 ppm 1880 mg/m <sup>3</sup>	STEL	ACGIH
Glycerin	15 mg/m <sup>3</sup>	TWA	OSHA
	10mg/m3	TWA	ACGIH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

IDLH: Immediately Dangerous to Life or Health

STEL: Short Term Exposure Limit during x minutes.

PEL: Permissible Exposure Limit

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

<b>Eyes</b>	Wear chemical safety glasses or goggles.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, apron or lab coat.
<b>Other</b>	Not Available

#### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid
Odor	Mild alcohol
Odor threshold	Not Available
pH	7.5
Melting point/freezing point	-144°C (-227.2°F)
Initial boiling point and boiling range	78°C (172.4°F) to 80°C (174°F)
Flash point	24°C (75°F): Closed cup
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable liquid
Upper/lower flammability or explosive limit	3.3-19%
Vapor pressure	(@ 20°C) 44.6 mmHg
Vapor density	(air=1) 1.6
Relative density	Not Available
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Upon combustion CO and CO <sub>2</sub> may be formed
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Keep away from heat, flame and sparks.
<b>Incompatible Materials</b>	Alkali metals, Ammonia, Oxidizing agents, peroxides.
<b>Hazardous Decomposition Products</b>	Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>Ethanol</b>	
Skin	Not Available
Eyes	Not Available
Respiratory	LC50 Inhalation – rat – 10 h – 20000 ppm
Ingestion	LD50 Oral – rat – 7,060 mg/kg
<b>Glycerin</b>	
Skin	LD50 Dermal – rat - > 10,000 mg/kg
Eyes	Not Available
Respiratory	LC50 Inhalation – rat – >570mg/m <sup>3</sup> /1Hr
Ingestion	LD50 Oral – rat – 12,600 mg/kg

**Carcinogenicity**

<b>IARC</b>	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	A3: Confirmed animal carcinogen with unknown relevance to humans (ethanol).
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Signs & Symptoms of Exposure**

<b>Skin</b>	Irritation, drying of skin.
<b>Eyes</b>	Irritation, redness, watering of eyes.
<b>Respiratory</b>	Irritation, coughing, dizziness, drowsiness.
<b>Ingestion</b>	Irritation, nausea, vomiting.

<b>Chronic Toxicity</b>	Not Available
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

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**12. ECOLOGICAL INFORMATION**

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**Ecotoxicity***Ethanol*

<b>Aquatic Vertebrate</b>	LC <sub>50</sub> (96 hours): 13,000 mg/L <i>Oncorhynchus mykiss</i> (Rainbow Trout)
<b>Aquatic Invertebrate</b>	Not Available
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Will not accumulate
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

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**13. DISPOSAL CONSIDERATIONS**

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<b>Waste Product or Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORTATION INFORMATION

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**DOT: 1-55 Gallon Packages**

NOT REGULATED PER 49 CFR 173.150(f)(2) "Combustible liquids in non-bulk packages"

**IATA:**

1 Gallon Package = PI355; 55 Gallon Package = PI366

**UN number** UN1993

**Proper Shipping Name** Flammable liquid, n.o.s. (Ethyl alcohol)

**Transport hazard class(es)** 3

**Packing Group** III

**IMDG:**

1 Gallon Package = LIMITED QUANTITY, 55 = FULLY REGULATED

**UN number** UN1993

**Proper Shipping Name** Flammable liquid, n.o.s. (Ethyl alcohol)

**Transport hazard class(es)** 3

**Packing Group** III

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## 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Ethyl Alcohol (in alcoholic beverages)
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Acute Health Hazard
SARA 312	Acute Health Hazard
SARA 313	Listed: Ethyl Alcohol
WHMIS Canada	Class B-2: Flammable and combustible liquid- Flammable liquid

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## 16. OTHER INFORMATION

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