

Safety Data Sheet

SDS Number: MAJ-014

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1. IDENTIFICATION

Product Name: TEC-KOOL -50° PGA Red RV Antifreeze
Chemical Name/Synonyms: N/A
Company Name & Address: Tec-Kool, 1320 1st Street, Rock Island, IL 61201
For More Information Call: (309) 788-5631 (Monday-Friday 8:00-4:30)
In Case of Emergency Call: (800) 424-9300 Chemtrec (24 Hours/7 Days)

2. HAZARD(S) IDENTIFICATION

Hazard Classification:

Hazard Class :	Category:	Hazard Statement:
Acute Toxicity-Inhalation	4	H332
Carcinogenicity	1A	H350

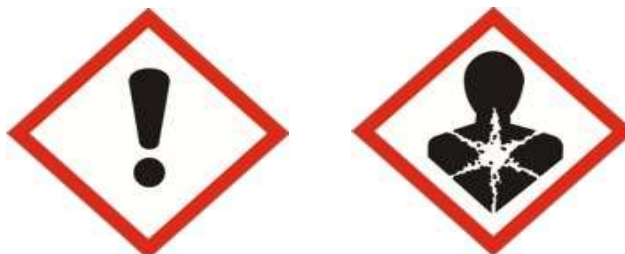
See section 16 for full list of H statements.

Signal Word: DANGER

Hazard Statement(s):

H332 Harmful if Inhaled
H350 May Cause Cancer

Pictogram(s):



Precautionary Statement(s):

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P501 Dispose of all contents/containers in accordance with local regulations.

Description of Other Hazards:

- H412 Harmful to aquatic life with long-lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS#	% By Weight	GHS-US
N/A			

The exact concentrations of ingredients are considered proprietary and are being withheld as a Trade Secret in accordance with paragraph (i) of §1910.1200. In addition, there is batch-to-batch variability in ingredient concentrations.

Mixture:

Chemical Name	CAS#	% By Weight	GHS-US
Ethyl Alcohol	64-17-5	10-20	
Glycerol	56-81-5	1-10	
2-Propanol	67-63-0	1-10	
Methyl Alcohol	67-56-1	<1	
Methylisobutyl Ketone	108-10-1	<1	

4. FIRST-AID MEASURES

Description of First-Aid Measures:

First-Aid Measures General:

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-Aid Measures after Inhalation:

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice. If not breathing, give artificial respiration.

First-Aid Measures after Skin Contact:

Remove contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Rinse immediately with plenty of water (for at least 15 minutes). Get medical advice/attention.

First-Aid after Eye Contact:

Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.

First-Aid after ingestion:

Obtain emergency medical attention. Rinse mouth. DO NOT INDUCE VOMITING! If the person is fully conscience, make him/her drink two glasses of water. Never give an unconscience person anything to drink. Call a POISON CENTER or doctor if you feel unwell. If medical advice is delayed, and if the person has swallowed a moderate volumn of material, then give three to four ounces of hard liquor, such as whisky. For children, give proportionally less, according to weight.

Most Important symptoms and effects, both acute and delayed:

Symptoms: Harmful if inhaled. May cause cancer.

Symptoms after skin contact: Causes skin irritation.

Symptoms after eye contact: Causes serious eye damage.

Symptoms after ingestion: Swallowing a small quantity of this material will result in serious health hazard.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Agents: Water fog. Alcohol-resistant foam. Foam.
Carbon dioxide. Dry chemical powder.
Sand. Fine water spray.

Unsuitable Extinguishing Agents: Not determined.

**Protective Equipment/Precautions
for Firefighters:**

Do not release runoff from fire control methods to sewers or waterways. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode. Full protective equipment including self-contained breathing apparatus should be used during a fire. During emergency conditions, over-exposure to decomposition products may cause a

health hazard. Symptoms may not be immediately apparent. Seek medical attention.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment:

See section 8 for recommendations on the use of personal protective equipment.

Measures for Environmental Protection:

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Measures for Cleaning/Collecting:

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

See section 8 for recommendations on the use of personal protective equipment. Wash thoroughly after using. Keep container closed when not in use. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

Conditions for Safe Storage, Including any Incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Chemical Name	CAS #	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl Alcohol	64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Glycerol	56-81-5	N/A	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction (vacated) TWA: 10 mg/m ³ mist, total particulate (vacated) TWA: 5 mg/m ³ mist, respirable fraction	N/A
2-Propanol	67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
Methyl Alcohol	67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³
Methylisobutyl Ketone	108-10-1	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m ³ (vacated) STEL: 75 ppm	IDLH: 500 ppm TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 300 mg/m ³

(vacated) STEL: 300 mg/m³

TWA: Time weighted average over 8 hours of work.
TLV: Threshold limit value over 8 hours of work.
REL: Recommended exposure limit.
PEL: Permissible exposure limit.
STEL: Short term exposure limit during x minutes.
IDLH: Immediately dangerous to life or health.
WEEL: Workplace environmental exposure levels.
CEIL: Ceiling.

Exposure Controls:

Personal Protective Equipment: Avoid all unnecessary exposure. Gloves. Safety glasses.

Breathing Equipment: Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.

Protection of Hands: Wear protective gloves.

Eye Protection: Wear chemical safety glasses or goggles, and face shield.

Additional Recommendations: N/A

9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties:

Physical State:	Liquid
Color:	Red
Odor:	Not Determined

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Odor Threshold:	Not Determined
pH:	7.67
Freezing Point:	Not Determined
Boiling Point:	Not Determined
Flash Point:	Not Determined
Evaporation Rate:	Not Determined
Flammability:	Not Determined
Auto-Ignition Temperature:	Not Determined
Decomposition Temperature:	Not Determined
Vapor Pressure:	Not Determined
Vapor Density:	Not Determined
Solubility:	Not Determined
Specific Gravity:	.974 - .990
Viscosity, Kinematic:	Not Determined
Viscosity, Dynamic:	Not Determined

10. STABILITY AND REACTIVITY

Reactivity: No dangerous reactions known under normal conditions of use.

Chemical Stability: Stable

Conditions to Avoid: Keep out of the reach of children.

Extremely high or low temperatures.

Incompatible Materials: None known based on information supplied.

Hazardous Decomposition Products: None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Potential Routes of Exposure:

Skin: Avoid contact with skin

Causes skin irritation

Eye: Avoid contact with eyes

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Causes serious eye damage

Inhalation: Harmful if inhaled

Ingestion: Do Not Ingest

Component Information:

Chemical Name	CAS #	Oral LD50	Dermal LD50	Inhalation LC50
Methyl Alcohol	67-56-1	= 5628 mg/kg (Rat)	= 15800 mg/kg (Rabbit)	= 83.2 mg/L (Rat) 4 h = 64000 ppm (Rat) 4 h
Glycerol	56-81-5	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h
1,2 Propanediol	57-55-6	= 20000 mg/kg (Rat)	= 20800 mg/kg (Rabbit)	N/A
2-Propanol	67-63-0	= 4396 mg/kg (Rat)	= 12870 mg/kg (Rabbit) = 12800 mg/kg (Rat)	= 72.6 mg/L (Rat) 4 h
Ethyl Alcohol	64-17-5	= 7060 mg/kg (Rat)	N/A	= 124.7 mg/L (Rat) 4 h
Methylisobutyl Ketone	108-10-1	= 2080 mg/kg (Rat)	> 16000 mg/kg (Rabbit)	= 8.2 mg/L (Rat) 4 h

Information on Physical, Chemical and Toxicological Effects:

Symptoms: Please see section 4 of this SDS for information.

Delayed and Immediate Effects as well as Chronic Effects From Short and Long-Term

Exposure:

Carcinogenicity: May cause cancer.

Chemical Name/CAS#	ACGIH	IARC	NTP	OSHA
Ethyl Alcohol 64-17-5	A3	Group 1	Known	X
2-Propanol 67-63-0		Group 3		X
Methylisobutyl Ketone 108-10-1	A3	Group 2B		X

12. ECOLOGICAL INFORMATION

Ecotoxicity: Harmful to aquatic life with long lasting effects.

Component Information:

Chemical Name/CAS#	Algae/Aquatic Plants	Fish	Toxicity to Microorganisms	Crustacea
Ethyl Alcohol 64-17-5		12.0 - 16.0: 96 h	EC50 = 34634 mg/L 30 min	9268 - 14221: 48 h Daphnia magna mg/L LC50 10800:

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		LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100 : 96 h Pimephales promelas mg/L LC50 flow-through		24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
Glycerol 56-81-5 1,2 Propanediol 57-55-6	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static 51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50		10000: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50 Static
2-Propanol 67-63-0	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow- through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50		13299: 48 h Daphnia magna mg/L EC50
Methyl Alcohol 67-56-1		28200: 96 h Pimephales promelas mg/L LC50 flow- through 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	
Methylisobutyl Ketone 108-10-1	400: 96 h Pseudokirchneriella subcapitata mg/L EC50	496 - 514: 96 h Pimephales promelas mg/L LC 50 flowthrough	EC50 = 79.6 mg/L 5 min	170: 48 h Daphnia magna mg/L EC50

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Biodegradation: Not Determined

Bioaccumulation: Not Determined

Mobility:

Chemical Name	CAS #	Partition Coefficient
Ethyl Alcohol	64-17-5	-0.32
Glycerol	56-81-5	-1.76
2-Propanol	67-63-0	0.05
Methyl Alcohol	67-56-1	-0.77
Methylisobutyl	108-10-1	1.19
Keytone		

Other Adverse Effects: Not Determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Waste: Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.

Ecology-waste materials: Avoid release to the environment

U.S. EPA Waste Number:

Chemical Name	CAS #	RCRA - Basis for Listing	RCRA - U Series Wastes
Methyl Alcohol	67-56-1	Included in Waste Stream: F039	U154
Methylisobutyl Ketone	108-10-1	Included in Waste Stream: F039	U161

California Hazardous Waste Status:

Chemical Name	CAS #	Status
Ethyl Alcohol	64-17-5	Toxic Ignitable
2-Propanol	67-63-0	Toxic Ignitable

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Methyl Alcohol	67-56-1	Toxic Ignitable
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14. TRANSPORT INFORMATION

Department of Transportation (DOT): Not Regulated
Maritime Transport IMDG: Marine Pollutant
This material may meet the definition of a marine pollutant
Air Transport ICAO-TI and IATA-DGR: Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations:

TSCA Inventory Status: Ingredients listed
DSCL(EEC): Ingredients listed
SARA 302: No Information Given
SARA 304: No Information Given
SARA 311: No Information Given
SARA 312: No Information Given
SARA 313: 2-Propanol (67-63-0) - Weight 1.5% - Threshold Value 1%

International Regulations:

Canada DSL/NDSL: Ingredients listed
EU EINECS/ELINCS: Ingredients listed
Japan ENCS: Present
China IECSC: Present
Korean KECL: Present
Philippines PICCS: Ingredients listed
Australian AICS: Ingredients listed

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U.S. State Regulations:

California

WARNING: This product contains the following Proposition 65 chemicals.

Prop 65:



Chemical Name	CAS #	Cal. Prop 65
Ethyl Alcohol	64-17-5	Carcinogen Developmental
Methyl Alcohol	67-56-1	Developmental
Methylisobutyl Ketone	108-10-1	Carcinogen

Please refer to Sections 2, 8, and 11 for health & exposure risks, for more information, see: www.P65Warnings.ca.gov

Others:

Massachusetts	Right to know list:	Listed
New Jersey	Right to know hazardous substance list:	Listed
Pennsylvania	Right to know list - environmental hazard list:	Listed

16. OTHER INFORMATION

NFPA

Health Hazard: 0-Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials.

Fire Hazard: 1-Must be preheated before ignition can occur.

Reactivity: 0-Normally stable, even under fire exposure conditions, and are not reactive with water.

NS Symbol: N/A



Full text of H statements:

Physical Hazards:

Code:	Phrase:
H200:	Unstable explosive
H201:	Explosive; mass explosion hazard
H202:	Explosive; severe projection hazard
H203:	Explosive; fire, blast or projection hazard
H204:	Fire or projection hazard
H205:	May mass explode in fire
H206:	Fire, blast or projection hazard: increased risk of explosion if desensitizing agent is reduced

Health Hazards (Cont.):

Code:	Phrase:
H300:	Fatal if swallowed.
H301:	Toxic if swallowed
H302:	Harmful if swallowed
H303:	May be harmful if swallowed
H304:	May be fatal if swallowed and enters airways
H305:	May be harmful if swallowed and enters airways
H310:	Fatal in contact with skin
H311:	Toxic in contact with skin

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H207: Fire or projection hazard: increased risk of explosion if desensitizing agent is reduced	H312: Harmful in contact with skin
H208: Fire hazard: increased risk of explosion if desensitizing agent is reduced	H313: May be harmful in contact with skin
H220: Extremely flammable gas	H314: Causes severe skin burns and eye damage
H221: Flammable gas	H315: Causes skin irritation
H222: Extremely flammable aerosol	H316: Causes mild skin irritation
H223: Flammable aerosol	H317: May cause an allergic skin reaction
H224: Extremely flammable liquid and vapour	H318: Causes serious eye damage
H225: Highly flammable liquid and vapour	H319: Causes serious eye irritation
H226: Flammable liquid and vapour	H320: Causes eye irritation
H227: Combustible liquid	H330: Fatal if inhaled
H228: Flammable solid	H331: Toxic if inhaled
H229: Pressurized container: may burst if heated	H332: Harmful if inhaled
H230: May react explosively even in the absence of air	H333: May be harmful if inhaled
H231: May react explosively even in the absence of air at elevated pressure and/or temperature	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H232: May ignite spontaneously if exposed to air	H335: May cause respiratory irritation
H240: Heating may cause an explosion	H336: May cause drowsiness or dizziness
H241: Heating may cause a fire or explosion	H340: May cause genetic defects
H242: Heating may cause a fire	H341: Suspected of causing genetic defects
H250: Catches fire spontaneously if exposed to air	H350: May cause cancer
H251: Self-heating; may catch fire	H351: Suspected of causing cancer
H252: Self-heating in large quantities; may catch fire	H360: May damage fertility or the unborn child
H260: In contact with water releases flammable gases which may ignite spontaneously	H361: Suspected of damaging fertility or the unborn child
H261: In contact with water releases flammable gas	H361d: Suspected of damaging the unborn child
H270: May cause or intensify fire; oxidizer	H361e: May damage the unborn child
H271: May cause fire or explosion; strong oxidizer	H361f: Suspected of damaging fertility
H272: May intensify fire; oxidizer	H361g: may damage fertility
H280: Contains gas under pressure; may explode if heated	H362: May cause harm to breast-fed children
H281: Contains refrigerated gas; may cause cryogenic burns or injury	H370: Causes damage to organs
H290: May be corrosive to metals	H371: May cause damage to organs
	H372: Causes damage to organs through prolonged or repeated exposure
	H373: May cause damage to organs through prolonged or repeated exposure
Environmental Hazards:	H300+H310: Fatal if swallowed or in contact with skin
Code:	H300+H330: Fatal if swallowed or if inhaled
Phrase:	
H400: Very toxic to aquatic life	

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H401: Toxic to aquatic life

H402: Harmful to aquatic life

H410: Very toxic to aquatic life with long-lasting effects

H411: Toxic to aquatic life with long-lasting effects

H412: Harmful to aquatic life with long-lasting effects

H413: May cause long-lasting harmful effects to aquatic life

H420: Harms public health and the environment by destroying ozone in the upper atmosphere

H433: Harmful to terrestrial vertebrates

Health Hazards:

Code:

Phrase:

H313+H333: May be harmful in contact with skin or if inhaled

H303+H313+H333: May be harmful if swallowed, in contact with skin or if inhaled

H315+H320: Causes skin and eye irritation

H310+H330: Fatal in contact with skin or if inhaled

H300+H310+H330: Fatal if swallowed, in contact with skin or if inhaled

H301+H311: Toxic if swallowed or in contact with skin

H301+H331: Toxic if swallowed or if inhaled

H311+H331: Toxic in contact with skin or if inhaled

H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled

H302+H312: Harmful if swallowed or in contact with skin

H302+H332: Harmful if swallowed or if inhaled

H312+H332: Harmful in contact with skin or if inhaled

H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled

H303+H313: May be harmful if swallowed or in contact with skin

H303+H333: May be harmful if swallowed or if inhaled

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