OFF-ROAD COOLANT

Version: 1.3
Released: 2016-06-01 Revision Date: 2020-08-05

1. IDENTIFICATION OF THE SUBSTANCE / APPLICATION AND THE COMPANY

Supplier:
Maxima Racing Oils
9266 Abraham Way
Santee, CA 92071
USA
+1 619 449 5000

Product Name: Off-Road Coolant
Article Number: 89-83505, 89-83964

Applications: Engine Coolant/Antifreeze

Emergency Telephone: In USA: CHEMTREC +1 703 527 3887 (24 hours)
Outside USA: +1 619 449 5000

2. HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity:	Category 4 (Oral)
Skin Corrosion:	Category 2
Eye Damage:	Category 1
Toxic to Reproduction:	Category 2
Specific Target Organ Toxicity Repeated Exposure:	Category 2

GHS Pictogram



Signal Word **Danger!**

Hazard Statements
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H361 Suspected of damaging the unborn child.
H373 May cause damage to kidneys through prolonged or repeated exposure.

Precautionary Statements

Prevention
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist, vapors or spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves, and eye protection.

Response
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P330 Rinse mouth.

OFF-ROAD COOLANT

Version: 1.3
Released: 2016-06-01 Revision Date: 2020-08-05

	P362 + P364 Take off contaminated clothing and wash it before reuse. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor.
Storage	P405 Store locked up.
Disposal	P501 Dispose of contents and container in accordance with local and national regulations.
Other Hazards	None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	Content %	CAS Number
Ethylene Glycol	15-40	107-21-1
2-Ethyl Hexanoic Acid, Potassium Salt	1-10	3164-85-0
Diethylene Glycol	1-5	111-466
Denatonium benzoate (bittering agent)	30-50ppm	3734-33-6

The specific identity and/or exact percentage has been withheld as a trade secret.

4. FIRST-AID MEASURES

Inhalation	If inhaled remove to fresh air. If irritation or difficulty in breathing occurs, get medical attention.
Skin Contact	Wash skin with soap and water. Remove clothing and shoes if contaminated. Launder clothing before reuse.
Eye Contact	Flush eyes with water for several minutes. Remove contact lenses, if present and easy to do so. If eye irritation persists, get medical attention.
Ingestion	If conscious, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Most Important Symptoms	May cause eye irritation. Inhalation of vapors or mists may cause nose, throat and upper respiratory tract irritation. Swallowing may cause gastrointestinal irritation, nausea, vomiting, blurred vision, irritability, back pain, and central nervous system effects.
Indication of Immediate Medical Attention Needed	Get immediate medical attention if large amounts are swallowed.
Notes to Physician	Treat appropriately. The currently recommended medical management of ethylene glycol poisoning includes elimination of ethylene glycol and metabolites, correction of metabolic acidosis and prevention of kidney injury. It is essential to have immediate and follow up urinalysis and clinical chemistry. There should be particular emphasis on acid-base balance and renal function tests. A continuous infusion of 5% sodium bicarbonate with frequent

OFF-ROAD COOLANT

monitoring of electrolytes and fluid balance is used to achieve correction of metabolic acidosis and forced diuresis. As a competitive substrate for alcohol dehydrogenase, ethanol is antidotal. Given in the early stages of intoxication, it blocks the formulation of nephrotoxic metabolites. A therapeutically effective blood concentration of ethanol is in the range 100-150 mg/dl, and should be achieved by a rapid loading dose and maintained by intravenous infusion. For severe and/or deteriorating cases, hemodialysis may be required. Dialysis should be considered for patients who are symptomatic, have severe metabolic acidosis, a blood ethylene glycol concentration greater than 25 md/dl, or compromise of renal functions.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use water fog, alcohol foam, dry chemical or carbon dioxide (CO2) to extinguish flames. A solid stream of water or foam can cause frothing.
Specific Hazards Arising From The Chemical	This product is not flammable but may form explosive mixtures in air. Combustion will produce carbon oxides, aldehydes and ethers.
Special Protective Equipment And Precautions For Fire-Fighters	Firefighters should wear full emergency equipment and a NIOSH approved positive pressure self-contained breathing apparatus. Cool exposed intact containers with water

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear appropriate protective equipment. Wash thoroughly after handling. See also: “Personal Protection "section 8.
Environmental Hazards	Avoid release into the environment. Report spill as required by local and federal regulations.
Methods/Materials for Cleaning up	Dike spill and collect with an inert absorbent. Place into closable containers for disposal. Collected material is handled in accordance with section 13 "Disposal Considerations".

7. HANDLING AND STORAGE

Precautions for Safe Handling:	Harmful if swallowed. Do not drink antifreeze. Avoid contact with eyes and prolonged or repeated contact with skin and clothing. Avoid breathing vapors and mists. Wash thoroughly after handling. Remove contaminated clothing and launder before re-use.

OFF-ROAD COOLANT

Version: 1.3
Released: 2016-06-01 Revision Date: 2020-08-05

Conditions for Safe Storage	Store in a cool area away from oxidizing agents. Protect containers from physical damage. Keep container tightly closed. Protect from physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits	2-Ethyl Hexanoic Acid, Potassium Salt	None Established
	Ethylene Glycol	100 mg/m^3 Ceiling ACGIH TLV
	Diethylene Glycol	10 mg/m^3 TWA AIHA WEEL

Appropriate Engineering Controls	Good general room ventilation (equivalent to outdoors) should be adequate under normal conditions. If the recommended exposure limit is exceeded increased mechanical ventilation such as local exhaust may be required.
Personal Protection	
Respiratory Protection:	None needed under normal use conditions with adequate ventilation. If exposure limits are exceeded, use a NIOSH approved respirator with organic vapor cartridges and particulate pre-filter. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.
Eye Protection:	Safety goggles recommended if splashing is possible.
Skin/Body Protection:	Appropriate protective clothing as needed to minimize skin contact. Suitable eye flushing facilities should be available in the work area. Contaminated clothing should be removed and laundered before re-use.
Hand Protection:	Use neoprene or PVC gloves for prolonged or repeated skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Color	Blue
Odor	Slightly Sweet odor
Odor Threshold	No data available
pH	10.5-11
Freezing Point	15°F (-9°C)
Boiling Point	220°F (104°C) – with a 15lb. Radiator Cap 260°F (127°C) – with a 30lb. Radiator Cap
Flash Point	241°F / 116°C (ethylene glycol)
Evaporation Rate	Nil
Flammability (solid, gas)	No data available
Upper Explosion Limit	15.3% (ethylene glycol)
Lower Explosion Limit	3.2% (ethylene glycol)
Vapor Pressure	<0.1 mmHg @68°F (20°C)

OFF-ROAD COOLANT

Version: 1.3
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Vapor Density (Air=1)	No data available
Relative Density	1.12
Solubility	Insoluble in hydrocarbons; Completely soluble in water
Partition Coefficient: n-octanol/water	No data available
Auto Ignition Temperature	748°F (398°C) (ethylene glycol)
Decomposition Temperature	No data available
Volatile Organic Compounds (VOC)	No data available
Viscosity	No data available

10. STABILITY AND REACTIVITY

Reactivity	Not expected to be reactive.
Chemical Stability	Stable.
Possibility of Hazardous Reactions	None known.
Conditions to Avoid	None known.
Incompatible Materials	Avoid contact with strong oxidizing agents, bases and acids.
Hazardous Decomposition Product	Thermal decomposition may produce carbon oxides, aldehydes and ethers.

11. TOXICOLOGICAL INFORMATION

Potential Health Hazards
Eye Contact: Causes severe irritation or burns with redness, tearing and pain. Permanent damage may occur.
Skin Contact: Prolonged or repeated contact may cause mild irritation.
Inhalation: Excessive inhalation of vapors or mists may cause nausea, vomiting, headache, dizziness and irregular eye movements.
Ingestion: Swallowing large amounts may cause gastrointestinal irritation or pain, nausea, vomiting, central nervous system effects, irregular eye movements, convulsions and coma. May cause severe kidney damage which may be fatal.
Chronic Effects of Overexposure: None known.
Sensitization: None of the components have been found to cause sensitization in animals or humans.
Mutagenicity: This product is not expected to cause mutagenic activity.
Reproductive Toxicity: In a reproductive study, groups of male and female rats received 100, 300 or 600 mg/kg of 2-Ethylhexanoic Acid in their drinking water. A delay in fertility was observed only in 2-Ethylhexanoic Acid treated animals. Sperm quality was slightly, but not uniformly affected. Pups born to the higher dosed dams showed lethargy, hematomas, abnormally thin hair, kinky tails and abnormal

OFF-ROAD COOLANT

legs. Delayed development of the pups was also observed. Ears raised later in mid- and high-dose groups, and eye opening, eruption of teeth, and hair growth occurred significantly later at the high dose level. The development of the grip and cliff avoidance reflexes were delayed, more clearly in males than females. NOAEL: 100 mg/kg (offspring); NOAEL: 300 mg/kg (parents).

A three-generation study indicated that ethylene glycol did not affect reproductive parameters at dietary concentrations up to 1.0 gm/kg/day in any generation.

Carcinogenicity: None of the components of this product are listed as a carcinogen or suspected carcinogen by IARC, NTP, or OSHA.

Acute Toxicity:

2-Ethyl Hexanoic Acid, Potassium Salt	Oral rat LD50 >2400 mg/kg, Inhalation rat LC0 >0.11 /h/L /8 hr (no mortality seen), Dermal rat LD50 >2000 mg/kg
Ethylene Glycol:	Oral rat LD50 4700 mg/kg, Dermal rat LD50 9530 mg/kg,
Diethylene Glycol:	Oral rat LD50 12565 mg/kg, Dermal rabbit LD50 11890 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

2-Ethyl Hexanoic Acid, Potassium Salt	96 hr LC50 Oryzias latipes >100 mg/L, 48 hr EC50 Daphnia magna 106 mg/L, 72 hr EC50 Desmodesmus subspicatus 49.3 mg/L
Ethylene Glycol	96 hr LC50 Pimephales promelas 53,000 mg/L, 48 hr EC50 daphnia magna >10,000 mg/L, 72 hr EL50 Scenedesmus quandricauda >10,000 mg/L
Diethylene Glycol:	96 hr LC50 western mosquitofish >32,000 mg/L
Biodegradation	Ethylene glycol, diethylene glycol and 2-Ethyl hexanoic acid, potassium salt are readily biodegradable.
Bioaccumulation	Ethylene glycol has a BCF of 10. Diethylene glycol has a BCF of 3. This suggests the potential for bioaccumulation is low.
Mobility in soil	Ethylene glycol and diethylene glycol are highly mobile in soil
Other adverse effects:	None known.

13. DISPOSAL CONSIDERATIONS

Disposal	Dispose in accordance with all local, state and federal regulations.

OFF-ROAD COOLANT

Version: 1.3
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14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT <10,000 lbs.		Not Regulated			
DOT >10,000 lbs	UN3082	RQ, Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)	9	PGIII	RQ 10,000 lbs.
TDG		Not Regulated			
IMDG		Not Regulated			
IATA		Not Regulated			

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form
Special precautions: None known.

15. REGULATORY INFORMATION

CERCLA: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for this product, based on the RQ for Ethylene Glycol (50% maximum) of 5,000 lbs, is 10,000 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations
EPA SARA 302: This product does not contain chemicals regulated under SARA Section 302.
EPA SARA 311 Hazard Classification: Acute Health, Delayed Health
EPA SARA 313: This product contains the following chemicals that are regulated under SARA Title III, section 313:
Ethylene Gylcol 107-21-1 45-50%

California Proposition 65: This product contains the following chemicals known to the State of California to cause cancer and reproductive toxicity:
Warning: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
Ethylene Glycol 107-21-1 45-50% reproductive toxicity

Chemical Inventories
Toxic Substances Control Act: All of the components of this product are listed on the TSCA inventory

OFF-ROAD COOLANT

Version: 1.3
Released: 2016-06-01 Revision Date: 2020-08-05

16. OTHER INFORMATION

NFPA Rating (NFPA 704):	Health: 2	Fire: 1	Instability: 0
HMIS Rating:	Health: 2*	Fire: 1	Physical Hazard: 0

*Chronic Health Hazard

Date of Revision: May 11, 2020
Date of Previous Revision: January, 2018
Revision History:
6/1/16: New document
11/6/17: Updated emergency telephone #
1/8/18: Added denatonium benzoate to section 3
5/11/20: Added 64 oz. size

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.