

MATERIAL SAFETY DATA SHEET

NOTE: READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

PRODUCT CODE AND NAME: ETHYLENE GLYCOL BASED ANTIFREEZE
55 GALLON DRUM - 6/1 GALLON

CHEMICAL NAME AND / OR FAMILY NAME OR / DESCRIPTION: ANTIFREEZE

MANUFACTURE'S NAME AND ADDRESS:

MG LUBE & OIL LLC.
136 MORGAN AVENUE
BROOKLYN, NY 11237
1-800-644-6457

1. NAME

MATERIAL IDENTITY

Product Code and Name:

HYPERZONE ANTIFREEZE 0° - 6/1 GALS.

Chemical Name and/or Family or Description:

ETHYLENE GLYCOL BASED ANTIFREEZE TO INCLUDE THE ABOVE PRODUCT CODE NUMBERS

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1 % OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0 % OR GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3.0 % OR GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE. REFER TO SECTION 14 FOR APPLICABLE STATES' RIGHT TO KNOW AND OTHER REGULATORY INFORMATION.

Product and/or Component (s) Carcinogenic According to:

OSHA IARC NTP OTHER NONE

X

Composition: (Sequence Number and Chemical Name

Seq.	Chemical Name	CAS Number	Range in %
01	1,2 ethanediol	107-21-1	80.00-94.99
02	Water deionized	7732-18-5	3.00-9.99
03	Phosphoric acid, dipotassium salt	7758-11-4	1.00-2.99

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

- COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

Exposure Limits referenced by sequence number in the Composition Section
Seq. Limit

01 50 ppm CEILING-OSHA
01 39.4 ppm CEILING-ACGIH (AEROSOL) (A4)

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance:

Fluorescent green liquid

Odor:

Mild odor

WARNING STATEMENT

WARNING ! HARMFUL IF SWALLOWED
MAY CAUSE DIZZINESS AND DROWSINESS
MAY CAUSE EYE IRRITATION
ASPIRATION HAZARD IF SWALLOWED -
CAN ENTER LUNGS AND CAUSE DAMAGE
FOR INDUSTRIAL USE ONLY
CAN CAUSE KIDNEY DAMAGE IF SWALLOWED
MAY CAUSE LIVER DAMAGE IF SWALLOWED BASED ON ANIMAL DATA
ATTENTION ! CONTAINS ETHYLENE GLYCOL WHICH MAY CAUSE BIRTH DEFECTS
BASED ON ANIMAL DATA

HMIS

Health: 2 Reactivity: 0
Flammability: 1 Special : -

NFPA

Health: 2 Reactivity: 0
Flammability: 1 Special : -

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	X	
	-	-	-	-

EFFECTS OF OVEREXPOSURE

Acute:

Eyes: May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Skin: Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below, and Section 11 for information regarding potential long term effects.

Inhalation: Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

Prolonged or repeated overexposure may result in the absorption of potentially harmful amounts of material.

Ingestion: Contains ethylene glycol and/or diethylene glycol, which are toxic when swallowed. A lethal dose for an adult is 1-2 ml per kilogram, or about 4 ounces (one-half cup). Symptoms include headache, weakness, confusion, dizziness, staggering, slurred speech, loss

Of coordination, faintness, nausea and vomiting, increased heart rate, decreased blood pressure, difficulty breathing and seeing, pulmonary edema, unconsciousness, convulsions, collapse, and coma. Symptoms may be delayed. Decreased urine output and kidney failure may also occur. Severe poisoning may cause death.

Aspiration may occur during swallowing or vomiting, resulting in lung damage.

Sensitization Properties:

Unknown

Chronic:

Repeated ingestion may cause kidney damage.

Medical Conditions Aggravated by Exposure:

Repeated over exposure may aggravate existing kidney disease.

Because of its irritating properties, repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

None

4. FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes.

Skin: Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion: If person is conscious and can swallow, immediately give two glasses (i.e., 16oz.) of water but do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Inhalation: If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Other Instructions: Ethylene glycol (EG) and diethylene glycol (DEG) intoxication may initially produce behavioral changes, drowsiness, vomiting, diarrhea, thirst, and convulsions. EG and DEG are nephrotoxic. End stages of poisoning may include renal damage or failure with acidosis. Supportive measures, supplemented with hemodialysis if indicated, may limit the progression and severity of toxic effects.

FOR ETHYLENE GLYCOL POISONING intravenous ethanol is a recognized antidotal treatment; other antidotal treatments also exist for EG poisoning. FOR DIETHYLENE GLYCOL POISONING the role of intravenous ethanol in the treatment is unclear but it may be of benefit in view of structural and toxicological similarities to ethylene glycol. Contact a poison center for further treatment information.

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a poison center for additional treatment information.

5. FIRE-FIGHTING MEASURES

Ignition Temperature - AIT (degrees F):

Not determined

Flash Point (degrees F):

244 (CC)

Flammable Limits (%):

Lower: Not determined.

Upper: Not determined.

Recommended Fire Extinguishing Agents and Special Procedures:

Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

Unusual or Explosive Hazards:

None

Extinguishing Media which must not be used:

Not determined.

Special Protective Equipment for Firefighters:

Wear full protective clothing and positive pressure breathing apparatus. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

6. ACCIDENTAL RELEASE MEASURES

Transportation Spills:

Procedures in case of accidental release, breakage or leakage:

Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

If more than 5,269 pounds of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

7. HANDLING AND STORAGE

Precautions to be taken in

Handling:

Minimum feasible handling temperatures should be maintained.

Storage:

Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:

Safety glasses, chemical type goggles, or face shield recommend to prevent eye contact.

Skin Protection:

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Appearance:

Fluorescent green liquid

Odor:

Mild odor

Boiling Point (degrees F):

388

Melting/Freezing point (degrees F):

Not applicable

Specific Gravity (water=1):

1.13

pH of undiluted product:

11

Vapor Pressure:

< .1 mmHg

Viscosity:

< 20 cSt at 40.0 C

VOC Content:

Not determined.

Vapor Density (air=1):

2.1

Solubility in Water (%):

< 10

Other:

None

10. STABILITY AND REACTIVITY**This Material Reacts Violently with:**

(If others is checked below, see comments for details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
-	-	-	-	-	X

Comments:

None

Products Evolved when subjected to heat or combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning. Heating in air may produce irritating aldehydes, acids, and ketones.

Hazardous Polymerizations: DO NOT OCCUR**11. TOXICOLOGICAL INFORMATION****TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)****Median Lethal Dose****Oral:**

Animal data does not reflect human toxicity; see sections 3 & 11

Inhalation:

Not determined

Dermal:

LD50 Believed to be < 1.00 - 2.00 g/kg (rabbit) slightly toxic

Irritation Index, estimation of irritation (Species)**Skin:**

(Draize) Believed to be > .50 - 3.00 /8.0 (rabbit) slightly irritating

Eyes:

(Draize) Believed to be > 15.00 - 25.00 /110 (rabbit) slightly irritating

Sensitization:

Not determined.

Other:

Oral administration of ethylene glycol to pregnant experimental animals

Has been shown to cause birth defects in the offspring. These effects were not seen when ethylene glycol was administered by dermal application or by inhalation. Continuous ingestion of a diet containing 1% or 2% ethylene glycol for two years produced liver and kidney damage, and bladder stones in rats.

12. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Remarks

To prevent contamination of drinking water supplies, and the poisoning of children, aquatic life, wildlife, and farm and domestic animals, ethylene glycol products such as used antifreeze solution, regardless of quantity, should never be discarded onto the ground, into surface waters, or into storm sewers.

13. TRANSPORT INFORMATION

Transportation

DOT:

Proper Shipping Name:

Not regulated

This product contains a DOT hazardous substance or substances, listed in Section 14 of the MSDS. If the product's shipping container holds at least 5,269 lbs., the DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous (solid/liquid) N.O.S., Class 9, unless the product qualifies for the petroleum exemption (49 CFR 171.8).

IMDG

Proper shipping name:

Not regulated

ICAO:

Proper shipping name:

Not regulated

TDG:

Proper shipping name:

Not regulated

14. REGULATORY INFORMATION

Federal Regulations:

SARA Title III:

Section 302/304 Extremely Hazardous Substances

Seq.	Chemical Name	CAS Number	Range in %
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None

Section 302/304 Extremely Hazardous Substances (CONT)

Seq.	TPQ	RQ
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None

Section 311 Hazardous Categorization:

Acute	Chronic	Fire	Pressure	Reactive	N/A
X	X				
-	-	-	-	-	-

Chemical Name	CAS Number	Concentration
1,2 ethanediol	107-21-1	80.00-94.99

CERCLA 102(a)/DOT Hazardous Substances: (+ indicates DOT Hazardous Substance)

Seq.	Chemical Name	CAS Number	Range in %
01+	1,2 ethanediol	107-21-1	80.00-94.99
02+	Phosphoric acid	7664-38-2	0.10-0.99
03+	Sodium hydroxide	1310-73-2	0.10-0.99

CERCLA/DOT Hazardous Substances (Sequence Numbers and RQ's):

Seq. RQ

01+	5000
02+	5000
03+	1000

TSCA Inventory Status:

This product, or its components, are listed on or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Other:

None

State Regulations:

California Proposition 65:

The following detectable components of this product are substances, or belong to classes of substances, known to the state of California to cause cancer and/or reproductive toxicity.

Chemical Name	CAS Number
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None

International Regulations:

WHMIS Classification:

Class D, Div 1, Subdiv B: Toxic

Class D, Div,2, Subdiv A: Teratogenic

Class D, Div 2, Subdiv B: Chronic toxic effects

Canada Inventory Status:

This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List. (DSL).

EINECS Inventory Status:

Not determined.

Australia Inventory Status:

Not determined.

Japan Inventory Status:

Not determined.

15. ENVIRONMENTAL INFORMATION

Aquatic Toxicity:

Not determined.

Mobility:

Not determined.

Persistence and Biodegradability:

This product is estimated to have a moderate ($\geq 30\%$) rate of biodegradation in a test for ready biodegradation.

Potential to Bioaccumulate:

This product is estimated to have a low potential to bioconcentrate.

Remarks:

None

16. OTHER INFORMATION

Acute or chronic oral consumption of products containing ethylene glycol can produce significant adverse health effects, including death, in humans and animals. Keep out of reach of children and pets. Such products should not be used in potable (drinking) water systems or other systems where contamination of potable water supplies is possible (e.g., recreational vehicles, winterizing potable water systems).

It is recommended that all exposures to this product be minimized by strictly adhering to recommended occupational controls procedures to avoid any potential adverse health effects.

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THIS PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF THE PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Inquiries regarding MSDS should be directed to:
Attention: Safety Manager

17. PRODUCT LABEL

READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

ETHYLENE GLYCOL BASED ANTIFREEZE

WARNING!

WARNING STATEMENT

HARMFUL IF SWALLOWED
MAY CAUSE DIZZINESS AND DROWSINESS
MAY CAUSE EYE IRRITATION
ASPIRATION HAZARD IF SWALLOWED -
CAN ENTER LUNGS AND CAUSE DAMAGE
FOR INDUSTRIAL USE ONLY
CAN CAUSE KIDNEY DAMAGE IF SWALLOWED
MAY CAUSE LIVER DAMAGE IF SWALLOWED BASED ON ANIMAL DATA
CONTAINS ETHYLENE GLYCOL WHICH MAY CAUSE BIRTH DEFECTS
BASED ON ANIMAL DATA

ATTENTION!

PRECAUTIONARY MEASURES

- Use only with adequate ventilation.
- Avoid breathing vapor, mist, or gas.
- Avoid contact with eyes, skin, and clothing.
- Wash thoroughly after handling.

FIRST AID

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin Contact:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If person is conscious and can swallow, immediately give two glasses (i.e., 16 oz.) of water but do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Inhalation:

If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Note to Physician:

Ethylene glycol (EG) and diethylene glycol (DEG) intoxication may initially produce behavioral changes, drowsiness, vomiting, diarrhea, thirst, and convulsions. EG and DEG are nephrotoxic. End stages of poisoning may include renal damage or failure with acidosis. Supportive measures, supplemented with hemodialysis if indicated, may limit the progression and severity of toxic effects.

FOR ETHYLENE GLYCOL POISONING intravenous ethanol is a recognized antidotal treatment; other antidotal treatments also exist for EG poisoning. FOR DIETHYLENE GLYCOL POISONING the role of intravenous ethanol in the treatment is unclear but it may be of benefit in view of structural and toxicological similarities to ethylene glycol. Contact a poison center for further treatment information.

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a poison center for additional treatment information.

FIRE

In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may cause frothing. Use water spray to cool fire-exposed containers.

If more than 5,269 pounds of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Range in %</u>
• 1,2 ethanediol water deionized	107-21-1	80.00-94.99
• Phosphoric acid, dipotassium salt	7732-18-5	3.00-9.99
	7758-11-4	1.00-2.99

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

- COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

<u>Pennsylvania Special Hazardous Substance(s)</u>	<u>CAS Number</u>	<u>Range in %</u>
None		
Health: 2	HMIS	NFPA
Flammability: 1	Reactivity: 0	Health: 2
	Special: -	Flammability: 1
		Reactivity: 0
		Special: -

Transportation

DOT:

Proper Shipping Name:

Not regulated

This product contains a DOT Hazardous substance or substances, listed in Section 14 of the MSDS. If the product's shipping container holds at least 5,269 lbs., then DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as environmentally hazardous (solid/liquid) N.O.S., Class 9, unless the product qualifies for the petroleum exemption (49 CFR 171.8).

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.