SAFETY DATA SHEET

Antifreeze, Virgin Grade (Ethylene Glycol Based)

Revised: 07/01/2026

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Antifreeze, Virgin Grade (Ethylene Glycol Based)
Synonyms: ethane-1,2-diol
CAS Number: 107-21-1 (ethylene glycol)
Grade/Purity: Virgin (A-A-52624A)
Product Type: Engine Coolant / Antifreeze (Liquid)
Product Use: Industrial, Manufacturing or Laboratory use
Manufacturer/Supplier: Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574
Information: 512-365-6838 | www.alliancechemical.com
Emergency: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Word: Warning

GHS Pictograms:



Hazard Statements:

H302	Harmful if swallowed.
H373	May cause damage to organs (kidneys) through prolonged or repeated exposure.

Precautionary Statements:

P264	Wash hands and exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P260	Do not breathe mist, vapours or spray.
P314	Get medical advice/attention if you feel unwell.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P501	Dispose of contents and container in accordance with all applicable regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	% MIN	% MAX	CAS #	EINECS# / ELINCS#	FORMULA	MOLECULAR WEIGHT
Antifreeze, Virgin Grade (Ethylene Glycol Based)	~93-97%	~93-97%	107-21-1 (ethylene glycol)	203-473-3	$C_2H_6O_2$	62.07 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
Skin	Wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation develops.
Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur (mist/heated vapor).

Ingestion	Ethylene glycol is metabolized to toxic acids - potentially fatal even in small amounts (humans and pets). Do NOT induce vomiting unless directed. Rinse mouth. Call a POISON CENTER/doctor immediately; specific antidote fomepizole (or ethanol) plus supportive care/hemodialysis may be required.

5. FIRE-FIGHTING MEASURES

Suitable Media	Use water spray, alcohol-resistant foam, dry chemical, or CO2. Use measures appropriate to local circumstances.
Unsuitable Media	Do not use a solid water stream as it may scatter and spread fire.
Protective Equipment	Wear self-contained breathing apparatus and full protective clothing.
Combustion Products	Combustion products: carbon oxides (CO, CO2) and aldehydes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental	Prevent leakage or spillage from entering drains, sewers, or waterways.
Containment & Cleanup	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

7. HANDLING AND STORAGE

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area. Keep away from: Strong oxidizers, strong acids and bases, isocyanates. Keep containers tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

Occupational Exposure Limits:

AGENCY	EXPOSURE LIMIT
OSHA PEL	None established
ACGIH TLV	100 mg/m3 (ceiling, aerosol)
NIOSH REL	None established
IDLH	Not established

Eyes	Wear chemical safety goggles or face shield.
Skin	Wear chemical-resistant gloves and protective clothing.
Inhalation	Use NIOSH-approved respirator if exposure limits are exceeded or irritation occurs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Green liquid, mild odor
Odor	Odorless to mild
Median Particle Size	Not Applicable
Particle Size Distribution	Not Applicable
Particle Shape	Not Applicable
Surface Area	Not Applicable
Dustiness	Not Applicable
Hygroscopicity	Not Applicable
pH	~7-8 (inhibited coolant)
Melting Point	~-13 C (concentrate)

Boiling Point	~163-197 C
Flash Point	~111 C (closed cup)
Vapor Pressure	0.06 mmHg at 20 C
Specific Gravity	~1.12
Solubility	Miscible with water
Molecular Formula	$C_2H_6O_2$
Molecular Weight	62.07 g/mol

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions.
Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat, sparks, open flame, and incompatible materials.
Incompatible Materials	Strong oxidizers, strong acids and bases, isocyanates
Decomposition Products	May produce carbon oxides and other toxic fumes when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: See below for route-specific data.

ROUTE	VALUE
LD50 Oral	4700 mg/kg (rat, oral)
LD50 Dermal	> 3500 mg/kg (rabbit)
LC50 Inhalation	Low volatility; aerosol/mist is the concern

IARC	Not listed as carcinogen.
NTP	Not listed as carcinogen.
OSHA	Not listed as carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Fish LC50: 96-h LC50 > 40,000 mg/L (low acute aquatic toxicity); Daphnia EC50: > 10,000 mg/L [PubChem]
Persistence	Readily biodegradable
Bioaccumulation	BCF: Low; not bioaccumulative
Mobility in Soil	High mobility in soil (Log Kow < 1)

13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

14. TRANSPORT INFORMATION

US DOT	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
IATA/ICAO	Not regulated as dangerous goods.
Marine Pollutant	No
Note	Hazard communication note: Product may meet GHS hazard criteria for workplace handling, while not being regulated as dangerous goods for transport.

15. REGULATORY INFORMATION

TSCA: listed. SARA 313 (TRI): ethylene glycol listed. CERCLA: RQ 5000 lb. Clean Water Act hazardous substance. California Proposition 65: ethylene glycol LISTED as a developmental toxicant - a WARNING is required. State Right-to-Know: listed (NJ, PA, MA). PET-TOXICITY HAZARD: sweet taste, fatal to animals - keep away from pets and wildlife.	
SARA 311/312	See Section 2 for hazard classifications.

16. OTHER INFORMATION

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