Material Safety Data Sheet

Propylene Glycol Antifreeze & Engine Coolant ANT（-35）

Date:08/12/2012
Version:2

Section 1. Product and company identification

Product name **Code**
Propylene Glycol Antifreeze & Engine Coolant **Ant**
Material uses **MSDS authored by**
Anti-Freeze and Engine Coolant Jinhua Gafle Auto Maintenance Supplies Plant
Supplier/Manufacturer **In case of emergency**
Jinhua Gafle Auto Maintenance Supplies Plant 86-579-82221661
Bai long qiao industiry, jinhua,zhejiang province, China
Phone: 86-579-82221665

Section 2. Hazards identification

Emergency overview
Color : transparent
Physical state: Liquid.
Odor : Mild to Odorless.
Signal word: CAUTION!
Hazard statements : MAY CAUSE EYE AND SKIN IRRITATION.
Precautions: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication
Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Routes of entry: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects
Inhalation: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.
Skin: Moderately irritating to the skin.
Eyes: Moderately irritating to eyes.
Potential chronic health effects
Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Ingestion : No specific data.

Inhalation : No specific data.

Skin : Adverse symptoms may include the following:
irritation
redness

Propylene Glycol Antifreeze & Engine Coolant

Eyes : Adverse symptoms may include the following:
irritation
watering
redness
None known.

Medical conditions aggravated by overexposure

Section 3. Composition/information on ingredients

United States

Name	CAS number	%
Propylene Glycol	57-55-6	50-60
Water	7732-18-5	40-50
Corrosion Inhibitor		2-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4. First aid measures

Eye contact:: Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact:: After contact with skin, wash immediately with plenty of soap and water. Get medical attention if symptoms occur.

Inhalation: Move exposed person to fresh air.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Notes to physician: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5. Fire-fighting measures

Flammability of the product : No specific fire or explosion hazard.

Extinguishing media:

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Hazardous decomposition: Decomposition products may include the following materials:

Products: carbon dioxide
carbon monoxide

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions : Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up:

Small spill : Absorb with an inert dry material and place in an appropriate waste disposal container Dispose via a licensed waste disposal contractor.

Large spill : Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and storage

Handling: Put on appropriate personal protective equipment (see Section 8). Avoid contact with used product. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Avoid contact with eyes, skin and clothing. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
1,2-Propanediol	**AIHA WEEL (United States, 10/2011)** TWA: 10 mg/m³ 8 hour(s)

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other	Notations
1,2-Propanediol	ON 7/2010 US AIHA 10/2011	- 50 -	10 155 10	- - -	- - -	- - -	- - -	- - -	- - -	- - -	[a] [b]

Form: [a]Aerosol only. [b]Vapour and aerosol.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures:

Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : No special ventilation requirements. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Ensure that eyewash stations and safety showers are close to the workstation location.Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Respiratory: Not required under normal conditions of use. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure a MSHA/NIOSH-approved respirator or equivalent is used.

Hands : Use gloves appropriate for work or task being performed. Recommended: Natural rubber (latex).

Eyes: Safety eyewear should be used when there is a likelihood of exposure. Recommended:

Safety glasses with side shields.

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before

handling this product. No special protective clothing is required. Recommended: Coveralls.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Section 9. Physical and chemical properties

Physical state: Liquid.

Odor: Mild to Odorless.

Color: transparent

pH: 5-9

Flash point::

Auto-ignition : Not available.

Flammable limits

Melting point/ -35°C

Boiling point:: >110°C

Vapor pressure:<0.015 kPa (<0.1 mm Hg) [20°C]

Relative density: 1.03- 1.05

Vapor density: 2.8 [Air = 1]

Volatility: Not available.

Evaporation rate: Not available.

Viscosity : Not available.

Solubility: Easily soluble in the following materials: cold water and hot water

Section 10. Stability and reactivity

Chemical stability: The product is stable.

Conditions to avoid: No specific data.

Materials to avoid: Reactive or incompatible with the following materials: oxidizing materials and acids.

Hazardous decomposition: Under normal conditions of storage and use, hazardous decomposition products should .

Products: not be produced

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1,2-Propanediol	LD50 Dermal LD50 Oral	Rabbi t Rat	20800 mg/kg 20 g/kg	- -

Chronic toxicity

There is no data available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1,2-Propanediol	Eyes -Mild irritant Skin - Mild irritant Eyes - Mild irritant Skin - Moderate irritant Skin -Moderate irritant Skin - Mild irritant	Rabbi Human Rabbit Child Human Woman	- - - - - -	24 hours 500 mg 168 hours 500mg 100 mg Child - 96 hours 30% Continuous 72 hours 104 mg Intermittent 96 hours 30% -	- - - - - -

Sensitizer

Skin There is no data available.

Respiratory There is no data available.

Carcinogenicity

There is no data available.

Mutagenicity

There is no data available.

Teratogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Section 12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
1,2-Propanediol	Acute EC50 >1000 mg/L Fresh water Acute LC50 1020000 ug/L Fresh water Acute LC50 710000 ug/L Fresh water	Daphnia - Daphnia magna - <24 hours Crustaceans - Ceriodaphnia dubia - <24 hours Fish - Pimephales promelas - <=7 days	48 hours 48 hours 96 hours

Persistence/degradability

There is no data available.

Section 13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling

information and protection of employees.

Section 14. Transport information

DOT/TDG/IMDG/IATA : Not regulated.

Section 15. Regulatory information

United States

HCS Classification: Not regulated.

U.S. Federal regulations: **United States inventory (TSCA 8b)**: All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: 1,2-Propanediol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 1,2-Propanediol: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Air Act Section:	
112(b) Hazardous Air Pollutants (HAPs)	Not listed
Clean Air Act Section 602: Class I Substances	Not listed
Clean Air Act Section 602 : Class II Substances	Not listed
DEA List I Chemicals Precursor Chemicals)	Not listed
DEA List II Chemicals: (Essential Chemicals)	Not listed

State regulations

Massachusetts: None of the components are listed.

New York : None of the components are listed.

New Jersey : The following components are listed: 1,2-Propanediol

Pennsylvania : The following components are listed: 1,2-Propanediol

California Prop. 65

No products were found.

Canada

WHMIS (Canada) : Not controlled under WHMIS (Canada).

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16. Other information

United States

Label requirements : MAY CAUSE EYE AND SKIN IRRITATION.

Hazardous Material:

Information System (U.S.A.)

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health

Special

Instability

Flammability

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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