

MATERIAL SAFETY DATA SHEET OF ANTIFREEZE COOLANT

Trade Name : ANTIFREEZE COOLANT READY MIX

1. CHEMICAL AND COMPANY IDENTIFICATION

GHS Product Name: Antifreeze Coolant Ready Mix

Product Code: COOLANT

Supplier: Astemo Asia Ltd.

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North Klongton, Wattana, BANGKOK 10110, Thailand

Emergency Contact Number: +66-61-3848262

Customer Care: af_thbt@astemo.com

SDS Date of Preparation: 19.10.2023

2. COMPOSITION AND INGREDIENTS

Ingredient Name	CAS Number	Content w/w%
Ethylene Glycol	107-21-1	25-30
Ingredients determined not to be hazardous, including our secret additive.	-	0-5
Deionized water	7732-18-5	65-70

3. HAZARDS IDENTIFICATION

Main Hazards: Not a dangerous preparation according to 1999/45/EC.

Adverse Human Health Effects: May cause damage to organs through prolonged or repeated exposure.



Environmental Hazard: No Specific risk for the environment.

Eye Contact:	May cause irritation to the eyes.
Oral Ingestion:	Expected to have moderate acute toxicity by ingestion. Liver and/or kidney damage have been reported to occur following significant exposures.
Inhalation:	Inhaling the vapors or mists in a poorly ventilated area may cause headache, nausea, drowsiness, dizziness or unconsciousness.
Skin Contact	Expected to cause no more than minor skin irritation. Prolonged or frequently repeated contact may cause more severe irritation or may cause the skin to become cracked or dry from the defatting action of this material.
Long Term Toxic Effects	Contains a solvent that may cause adverse systemic effects when ingested, inhaled, or absorbed through the skin. See section – 11 for additional information.

4. FIRST AID MEASURES

Eyes:	Flush eyes immediately with fresh water for several minutes while holding the eyelids open. If irritation persists, see a doctor.
Skin:	Remove and launder contaminated clothing, including shoes. Wash skin thoroughly with soap and water. See a doctor if any signs or symptoms described in this MSDS occur.
Ingestion:	If swallowed and person is conscious, give water or milk. DO NOT make person vomit except on advice of medical personnel. If advice cannot be obtained, take person with container and label to nearest emergency treatment centre. Never give anything by mouth to an unconscious person
Inhalation:	If there are signs or symptoms as described in this MSDS due to breathing this material, move the person to fresh air. If breathing has stopped, apply artificial respiration. Call a doctor.
Advice to Doctor:	None applicable

5. FIRE FIGHTING MEASURES

Auto-Ignition Temperature, °C	: >398°C
Flammable Limits (% by Volume):	LEL: 3.2 UEL: 17.4
Flash Point, °C:	>120-123°C
Fire Extinguishing Agents:	According to the US National Fire Protection Association Guide, use water spray, dry chemical, foam, or carbon dioxide. Water or

foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapours and to provide protection for personnel attempting to stop the leak.

Explosion Hazards: For fires involving this material, do not enter any enclosed or confined space without self-contained breathing apparatus to protect against the hazardous effects of combustion products or oxygen deficiency.

6. ACCIDENTAL RELEASE MEASURES

In case of Spill: Stop the source of the leak or release and contain spill if possible. Ventilate the area. Use respirator and protective clothing as discussed in this MSDS. Cover spill with a generous amount of inert absorbent. Use a stiff broom to mix thoroughly. Sweep up and place in a disposable container. Scrub contaminated area with detergent and water using a stiff broom. Pick up liquid with additional absorbent and place in a disposable container. Prevent contamination of ground water or surface water.

7. HANDLING AND STORAGE

Minimum feasible handling temperature between 15°C to 35°C should be maintained. Periods of exposure temperature above 40°C should be minimised.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Eyes

Avoid eye contact. The wearing of chemical safety goggles or face shield is recommended.

Skin

Exposed employees should exercise reasonable personal cleanliness; this includes cleansing exposed skin several times daily with soap and water and laundering or dry-cleaning soiled work clothing at least weekly.

Inhalation

Respiratory protection is normally not required. However, if operating conditions create airborne concentrations which exceed the recommended exposure standard(s), the use of an approved respirator is recommended. Wear approved respiratory protection such as toxic dust, mist and fume respirator.

Ventilation

No special ventilation is usually necessary. However, if operating conditions create high airborne concentrations of this material, engineering controls may be needed. Local exhaust ventilation and/or enclosure of the processes is preferred in these cases.

Exposure Limits: May cause damage to organs through prolonged or repeated exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: The following data may represent a range of approximate or typical values for products in the same family. Precise technical information is provided in Product Bulletins and can be obtained from your Marketing Representative.

Appearance and Odor: Colourless to amber liquid

Boiling Point : > 105°C

Vapor Pressure (mmhg @ 25 °C): Not available

Density (kg/l at 15 °C): 1.046 -1.054

Vapor Density (Air=1): Not Available

Undiluted product's pH: 7-11

Solubility in Water: Completely Soluble

Percent Volatile by Volume: Not determined.

Evaporation rate: Not determined.

Viscosity (All Product Grades): Not available

10. STABILITY AND REACTIVITY

Hazardous Polymerization: DO NOT OCCUR

Products of Combustion: Carbon monoxide/carbon dioxide formed during burning in limited air.

Conditions to Avoid: Strong oxidizers as chlorates, nitrates, peroxides etc and heat.

11. TOXICOLOGICAL INFORMATION

General: This product contains ethylene glycol, water and additives. Reported effects include kidney damage from high doses or from prolonged or repeated exposure. While normal use of this material should not result in any adverse effects, we strongly recommend that the precautions outlined in this MSDS be followed to minimize skin contact and keep inhalation of mists to a minimum.

12. ECOLOGICAL INFORMATION

Environmental Effects: This product is expected to have a moderate (more than or equal to 30%) rate of biodegradation, and a low potential to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Check governmental regulations and local authorities for approved disposal of this material.

Remarks: Releases of this product should be prevented from containing soil, and from entering drainage, sewer systems, and all bodies of water.

14. TRANSPORT INFORMATION

UN Number: Not applicable

Dangerous Goods Class: Not applicable

Proper Shipping Name: Not applicable

Hazchem Code: Not applicable

Additional Information: None determined.

15. REGULATORY INFORMATION

Respirator Information:

In the absence of local approval authorities/standards, follow US NIOSH/MSHA, UK BSI regulations. Respirators must meet either the above or local standard for approved respirators.

16. OTHER INFORMATION - No specific notes on this product.

To the best of our knowledge, the information provided in this MSDS document is correct. Access to this information is being provided via the Internet too so that it can be made available to as many potential users as possible. We do not assume any liability for the consequences of the use of this information since it may be applied under conditions beyond our control or knowledge. Also, it is possible that additional data could be made available after this MSDS was issued. Certain hazards are described herein; however, these may not be the only hazards that exist. All materials may present unknown hazards and should be used with caution.

Customers are encouraged to review this information, take precautions, and comply with all applicable laws and regulations regarding the use and disposal of this product. For specific technical data or advice concerning this product as supplied in your country please contact your local sales representative. The final determination of the suitability of any material is the sole responsibility of the user.