



Product Name **COOLING SYSTEM ANTIFREEZE/ANTIBOIL**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** Dyna Fuels Australia PTY LTD  
**Address** 94 /38-40 Popes Road Keysborough , Vic 3173  
**Telephone** 04057491045  
**Fax**  
**Emergency** 0405749045  
**Web Site** Dynafuels.com  
**Synonym(s)** ANTIFREEZE • CSAF - PRODUCT CODE  
**Use(s)** ANTIFREEZE • COOLANT • GREEN  
**SDS Date** 19 Oct 2019

## 2. HAZARDS IDENTIFICATION

**CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA**

### RISK PHRASES

R22 Harmful if swallowed.

### SAFETY PHRASES

S2 Keep out of reach of children.

**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

**UN No.** None Allocated **DG Class** None Allocated **Subsidiary Risk(s)** None Allocated

**Packing Group** None Allocated **Hazchem Code** None Allocated

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
ETHYLENE GLYCOL	C2-H6-O2	107-21-1	98%
WATER CONDITIONING AGENT(S)	Not Available	Not Available	<10%

## 4. FIRST AID MEASURES

**Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation** If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Airline respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once).

**Advice to Doctor** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

<b>Flammability</b>	Combustible. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air.
<b>Fire and Explosion</b>	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
<b>Extinguishing</b>	Water, foam, carbon dioxide, or dry chemical. Prevent contamination of drains or waterways.
<b>Hazchem Code</b>	None Allocated

## 6. ACCIDENTAL RELEASE MEASURES

**Spillage** Contact emergency services where appropriate. Use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Prevent spill entering drains or waterways.

## 7. STORAGE AND HANDLING

<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, phosphorus pentasulphide, sodium hydroxide, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Store as a Class C1 Combustible Liquid (AS1940).
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

### Exposure Stds

Ingredient	Reference	TWA		STEL	
Ethylene glycol (vapour)	SWA (AUS)	20 ppm	52 mg/m <sup>3</sup>	40 ppm	104 mg/m <sup>3</sup>

**Biological Limits** No biological limit allocated.

**Engineering Controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE** Wear splash-proof goggles, rubber or butyl or neoprene gloves and coveralls. Where an inhalation risk exists, wear: a Type A (Organic vapour) respirator.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	CLEAR GREEN LIQUID	<b>Solubility (water)</b>	SOLUBLE
<b>Odour</b>	SLIGHT ODOUR	<b>Specific Gravity</b>	1.1 (Approximately)
<b>pH</b>	10.5 (33% solution)	<b>% Volatiles</b>	< 5 %
<b>Vapour Pressure</b>	0.01 kPa (Approximately)	<b>Flammability</b>	CLASS C1 COMBUSTIBLE
<b>Vapour Density</b>	NOT AVAILABLE	<b>Flash Point</b>	116°C
<b>Boiling Point</b>	190°C	<b>Upper Explosion Limit</b>	NOT AVAILABLE

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Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT AVAILABLE
Evaporation Rate	NOT AVAILABLE		

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## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under recommended conditions of storage.
<b>Conditions to Avoid</b>	Avoid heat, sparks, open flames and other ignition sources.
<b>Material to Avoid</b>	Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid), alkalis (eg. hydroxides) and phosphorus pentasulphide.
<b>Hazardous Decomposition Products</b>	May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition.
<b>Hazardous Reactions</b>	Polymerization is not expected to occur.

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## 11. TOXICOLOGICAL INFORMATION

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<b>Health Hazard Summary</b>	Moderate toxicity. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. At room temperature ethylene glycol has a low vapour pressure and therefore an inhalation hazard is not anticipated unless heated or sprayed. Chronic exposure may result in kidney and central nervous system (CNS) damage.
<b>Eye</b>	Low to moderate irritant. Contact may result in irritation, lacrimation, pain and redness.
<b>Inhalation</b>	Low irritant. Over exposure may result in mild respiratory irritation. High level exposure may result in headache, nausea, dizziness and central nervous system (CNS) depression. Due to the low vapour pressure, an inhalation hazard is not anticipated with normal use.
<b>Skin</b>	Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis.
<b>Ingestion</b>	Moderate toxicity. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, drowsiness and unconsciousness. Chronic exposure may result in kidney damage. Aspiration may result in chemical pneumonitis and pulmonary oedema.
<b>Toxicity Data</b>	ETHYLENE GLYCOL (107-21-1) LC50 (Inhalation): 10 876 mg/kg (rat) LD50 (Ingestion): 1650 mg/kg (cat) LD50 (Skin): 9530 ug/kg (rabbit) LDLo (Ingestion): 398 mg/kg (human) TCLo (Inhalation): 10,000 mg/m <sup>3</sup> (human - cough) TDLo (Ingestion): 5500 mg/kg (child - anaesthesia)

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## 12. ECOLOGICAL INFORMATION

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<b>Environment</b>	Ethylene glycol will mainly exist in the vapour phase in the ambient atmosphere where it will be degraded by reaction with hydroxyl radicals. Expected to be very highly mobile in soil. Not anticipated to volatilise from moist soil or water surfaces. Biodegradation in both soil and water is expected to be a major fate process for this compound. Not expected to bioconcentrate in aquatic organisms.
<b>Ecotoxicity</b>	Not classified as dangerous to the aquatic environment.
<b>Persistence / Degradability</b>	Expected to be inherently biodegradable.
<b>Mobility</b>	Expected to remain in water or migrate through soil.

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## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Disposal</b>	For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

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**14. TRANSPORT INFORMATION**

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**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

<b>Shipping Name</b>	None Allocated			
<b>UN No.</b>	None Allocated	<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b> None Allocated
<b>Packing Group</b>	None Allocated	<b>Hazchem Code</b>	None Allocated	

**15. REGULATORY INFORMATION**

<b>Poison Schedule</b>	Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
<b>AICS</b>	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

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**16. OTHER INFORMATION**

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**Additional Information**

ETHYLENE GLYCOL: Has been reported to cause teratogenic and mutagenic effects, however the doses recorded for these effects are extremely high. For example experimental rat studies by the oral route have shown that ingestion of 8.5 g/kg by pregnant rats in their 6-15 day of gestation caused teratogenic effects. This equates to the ingestion of 500 ml of ethylene glycol by a 60 kg women for similar effects to occur. Exposure at such levels is not reported in industry.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

**ABBREVIATIONS:**

ACGIH - American Conference of Industrial Hygienists.

ADG - Australian Dangerous Goods.

BEI - Biological Exposure Indice(s).

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

EC No - European Community Number.

HSNO - Hazardous Substances and New Organisms.

IARC - International Agency for Research on Cancer.

mg/m<sup>3</sup> - Milligrams per Cubic Metre.

NOS - Not Otherwise Specified.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

STEL - Short Term Exposure Limit.

SWA - Safe Work Australia.

TWA - Time Weighted Average.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**Report Status**

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Product Name **COOLING SYSTEM ANTIFREEZE/ANTIBOIL**

SDS Date 19 Oct 2019

**End of Report**