



Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER:

Product Name: **Fortron ANTI FREEZE/ANTI BOIL**

Other Names: **ANTI FREEZE/ANTI BOIL**
FAF200 – 200 litre metal drum
FAF20 – 20 litre plastic container
FAF5 – 5 litre plastic container (EOL)
FAF36 – 3.6 litre plastic container
FAF1 – 1 litre plastic container

Recommended Use: Automotive coolant and Anti Freeze for use at dilutions from 30:70 to 70:30 in clean water.

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2. HAZARDS IDENTIFICATION:

HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA

Hazard Identification: Xn Harmful

Risk Phrase: R22 Harmful if swallowed

Safety Phrase: S2 Keep out of the reach of children
S20 When using, do not eat or drink
S24/25 Avoid contact with skin and eyes

3. COMPOSITION/INFORMATION ON INGREDIENTS:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Proportion % w/w</u>
Ethylene Glycol	107-21-1	90-98%



4. FIRST AID MEASURES:

- Swallowed: If swallowed, DO NOT INDUCE VOMITING, immediately rinse mouth with water. Give plenty of water or milk to drink. Seek immediate medical advice.
- For advice, contact a Poisons Information Centre. Phone Australia 13 1126; New Zealand 03 4747 000 (Not after May 2005) or 0800 764 766; or a doctor (at once).
- Eye: If contact with the eye(s) occurs, immediately hold the eye open and wash continuously for at least 15 minutes with fresh running water. Ensure irrigation under eyelids by occasionally lifting the upper and lower lids. If symptoms persist seek medical advice.
- Skin: Wash contaminated skin with plenty of water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.
- Inhaled: Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm.
- Keep at rest until fully recovered. If breathing is laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a facemask.
- If breathing has stopped apply artificial respiration at once. In event of cardiac arrest, apply external cardiac massage. Seek medical advice.
- First Aid Facilities: Eye wash facilities and normal wash room facilities.
- Advice to Doctor: Treat symptomatically and as for exposure to ethylene glycol.

5. FIRE FIGHTING MEASURES:

- Extinguishing Media: In case of fire, use water spray, water fog, foam, carbon dioxide or dry chemical powder. DO NOT USE WATER JET.
- Hazards from Combustion Products: Carbon dioxide and carbon monoxide
- Fire Fighting Precautions: Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.
- Additional Information: When heated to decomposition, emit acrid smoke and irritating fumes. Not a product presenting risks of explosion.
- Hazchem Code: Not applicable



6. ACCIDENTAL RELEASE MEASURES:

Emergency Procedures: Shut off all possible sources of ignition. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination.

Methods and Materials for Containment and Clean up:- Small Spills/Large Spills: Contain using sand or soil – prevent run off into drains and waterway. Use absorbent (soil, sand, vermiculite or other inert material). Collect and seal in properly labelled containers for disposal.

Dispose according to State Land Management Authority regulations.

7. HANDLING AND STORAGE:

Precautions for Safe Handling: Avoid prolonged or repeated skin contact and inhalation of vapour or aerosols. Wear overall, safety shoes, goggles and neoprene, PVC or natural rubber gloves. If inhalation risk exists wear organic vapour or organic vapour/particulate respirator meeting the requirements of AS1715 and AS1716. Always wash hands before smoking, eating, drinking or using the toilet.

Conditions for Safe Storage: Store in a cool, dry place and out of direct sunlight. Store away from oxidising agents, foodstuffs, and sources of heat or ignition.

Classified as 3.3 (Combustible Liquid) Dangerous Substance for the purpose of transport.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

National Exposure Standards:

SUBSTANCE Occupational Exposure Limits TWA 60mg/m³, STEL 120mg/m³

Exposure Standard means the average concentration of a particular substance in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. It can be of three forms; time-weighted average (TWA), peak limitation, or short term exposure limit (STEL).

Time-weighted average (TWA) is defined as the concentration of that substance over an eight-hour working shift, and apply to an eight-hour day, for a five-day working week over an entire working lifetime. Short Term Exposure Limits (STEL) and Peak Limitations may also be specified for short periods of exposure such as 15 minutes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION: - continued

Engineering Controls: Ensure good ventilation. In industrial situations, concentration values below the TWA value should be maintained. Values may be reduced by process modification, use of local ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high; you are advised to modify the process or environment to reduce the problem.

Personal Protective Equipment: Avoid prolonged or repeated skin contact and inhalation of vapour or aerosols. Wear overalls, safety shoes, goggles and neoprene, PVC or natural rubber gloves. If inhalation risk exists wear organic vapour or organic vapour/particulate respirator meeting the requirements of AS1715 and AS1716. Always wash hands before smoking, eating, drinking or using the toilet.

Hygiene Recommendations: Keep an eye wash fountain available.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Clear green mobile liquid
Odour:	None
pH:	9 to 11 (1% in water)
Vapour Pressure:	0.06kPa mmHg @ 20 °C
Vapour Density:	2.1
Boiling Point:	197°C
Freezing/Melting Point:	-13°C
Solubility in Water:	Soluble in water, methanol, diethylether
Specific Gravity:	1.115 – 1.145
Flashpoint:	116.1° C (Closed Cup)
Flammability Limits:	LEL 3.2 UEL 15.3
Auto Ignition Temperature	412°C
Volatiles:	0

10. STABILITY AND REACTIVITY:

Chemical Stability:	Combustible Liquid. Stable under normal conditions of use
Conditions to Avoid:	No additional remarks
Incompatible Materials:	Store away from oxidising agents, acids, alkalis, and foodstuffs
Hazardous Decomposition Products:	Burning can produce carbon monoxide and/or carbon dioxide



11. TOXICOLOGICAL INFORMATION:

HUMAN HEALTH HAZARDS - ACUTE

Swallowed:	Initial symptoms following a large dose (>100ml) are those of alcohol intoxication, progressing to vomiting, cyanosis, headache, pulmonary oedema, muscle tenderness, stupor, convulsions and unconsciousness. Death may occur within a few hours from respiratory failure or with 24 hours from pulmonary oedema.
Eye:	A mild irritant. Can cause transient conjunctivitis.
Skin:	Will degrease the skin. Repeated or prolonged skin contact may lead to mild irritation and/or dermatitis. Can be absorbed through the skin but not readily absorbed in toxic amounts (symptoms may be similar to those described for "Swallowed").
Inhaled:	Not a risk due to low vapour pressure at ambient temperatures. Inhalation of vapours, mists or aerosols can produce respiratory irritation. Headache and low backache have also been reported. High concentrations may cause drowsiness and irregular eye movements.
Chronic:	Toxic to Kidney and Liver
Toxicity to Animals:	Acute oral toxicity LD50 (rat) : 4700 mg/kg Acute dermal toxicity LD50 (Rabbit) : 9530mg/kg

12. ECOLOGICAL INFORMATION:

Ecotoxicity:	Not available
Persistence and Degradability:	Biodegradable
Mobility:	Miscible with water.

13. DISPOSAL CONSIDERATIONS:

Disposal Methods and Containers:	Contain using sand or soil – prevent run off into drains and waterways. Use absorbent (soil, sand, vermiculite or other inert material). Collect and seal in properly labelled containers for disposal. Dispose according to State Land Management Authority regulations.
Special precautions for Landfill or Incineration:	No special requirements.



14. TRANSPORT INFORMATION:

UN Number: None Allocated

UN Proper Shipping Name:

Class and Subsidiary Risk: None Allocated

Packaging Group: None Allocated

Special Precaution for user: None Allocated

Hazchem Code: None Allocated

Poisons Schedule: S5

Classified as a 3.3 (Combustible Liquid) Dangerous Substance for the purpose of transport.

15. REGULATORY INFORMATION:

Poisons Schedule: 5

AICS: Listed

Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76:1997) : N/A

Hazardous according to criteria of Worksafe Australia

16. OTHER INFORMATION:

Date of Issue: 29th July, 2008

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Please Note:

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