

SAFETY DATA SHEET

Safety Data Sheet according to WHS and ADG requirements

This substance is classified as **Hazardous** according to the criteria of Worksafe Australia

ECO FREEZE - AOC5000 LONG LIFE COOLANT CONCENTRATE

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

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|--------------------------|--|
| Product Name | AOC5000 Long Life Coolant Concentrate |
| Product Code | AOC5000 |
| Product Use | Engine Cooling System Treatment |
| Company Name | Australian Organic Coolants |
| Address | PO Box 768, Bungalow, Queensland, 4870 Australia |
| Telephone | +61 7 4051 2400 |
| Fax | +61 7 4031 5490 |
| Other Names | |
| Other Information | |

2. COMPOSITION / INFORMATION ON INGREDIENTS

| Information on Composition | Chemical Entity | CAS Number | Proportion |
|----------------------------|--|------------|------------|
| | Ethylene Glycol | 107-21-1 | >60% |
| | Denatonium Benzoate | 3437-33-6 | <1% |
| | Other ingredients determined not to be hazardous | | |

3. HAZARDS IDENTIFICATION

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| HUMAN HEALTH HAZARDS | ACUTE |
| Eyes | Can cause moderate irritation |
| Skin | Can cause moderate irritation |
| Ingestion | Harmful if swallowed. Large quantities may cause kidney disease. Irritation of the gastro-intestinal tract may occur with nausea and vomiting. |
| Inhalation | Not a likely route of exposure. Mists or vapours may be irritating to eyes, nose, throat and lungs |
| HUMAN HEALTH HAZARDS | CHRONIC |
| | Contains mono ethylene glycol, which is toxic when swallowed. 100ml is considered a lethal dose for an adult. Repeated exposure to high doses by ingestion (animal studies) has caused kidney, liver and central nervous system damage. |

4. FIRST AID MEASURES

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| Eye Contact | Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open for at least 15 minutes. Obtain medical attention if irritation continues. |
| Skin Contact | Wash skin with soap and water as soon as reasonably practicable. Remove contaminated clothing. Seek medical attention. |
| Ingestion | If a significant quantity has been swallowed, do not induce vomiting. Give 2 glasses of water. Seek medical attention. |
| Inhalation | If inhalation of mists, fumes or vapour causes irritation to the nose or throat, or coughing, remove to fresh air. If symptoms persist, obtain medical advice. |
| | As with any chemical, exposure by ingestion, inhalation or contact with eyes or skin should be avoided by correct occupational practices. |
| Advice to Doctor | Treatment should in general be symptomatic and directed to relieving any effects. |

5. FIRE FIGHTING MEASURES

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| Flash Point | Non flammable |
| Extinguishing Media | Choice of extinguishing media should be made by what other materials are present. |
| Fire and Explosion Hazard | Combustible – oxides of carbon may be evolved after evaporation of all the water. |
| Special Protective Equipment for Fire Fighting | In case of fire, wear a full face self-contained breathing apparatus and protective suit. |



6. ACCIDENTAL RELEASE MEASURES

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| Personal Precautions | Restrict access to area affected until clean-up is completed. Use personal protective equipment as detailed in section 8. Do not touch spilled material. Emergency equipment should be available. Notify appropriate authorities. |
| Environmental Precautions | Do not contaminate surface waters – depletion of oxygen in the water will occur. |
| Clean Up Methods | Soak up spilled material using sand or other suitable inert absorbent material. Place residues in a suitably marked sealed container. Protect drains from potential spilled to minimize contamination. In the case of large spills contact the appropriate authorities. |

7. HANDLING AND STORAGE

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| Handling | Use with adequate ventilation. Avoid contact with the eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate. |
| Storage | Avoid frequent or prolonged skin contact. Wear PVC or similar gloves. Store only in original or approved containers. Store away from oxidizers. |

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

| Occupational Exposure Limits | | TWA mg/m ³ | STEL mg/m ³ | PEAK/CEILING ppm | PEAK/CEILING mg/m ³ |
|------------------------------|---|---|---------------------------|---------------------|-----------------------------------|
| Ingredient Name | | | | | |
| Ethylene glycol (vapour) | NOHSC | 60 | 120 | | |
| Ethylene glycol | OSHA/PEL | | | 50 | 125 |
| Engineering Measures | Local exhaust ventilation should be provided. | | | | |
| Personal Protection | Eyes | Use chemical splash goggles. | | | |
| | Skin | Wear standard protective clothing. | | | |
| | Hands | Wear any impervious gloves. | | | |
| | Respiratory | Respiratory protection is not generally needed. If ventilation is inadequate, use respirator that will protect against dusts and mists. Respiratory protection should confirm to AS/NZS 1715 & AS/NZS 1716. | | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

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|-------------------------|-------------|
| Odour | Slight |
| Boiling Point | N/A |
| Flash Point | 9.2 – 9.5 |
| Vapour Pressure | N/A |
| Physical State | Liquid |
| Colour | Pale Green |
| Flammable Limits | 1.05 – 1.07 |

10. STABILITY AND REACTIVITY

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| Hazardous Polymerisation | Hazardous polymerization reactions will not occur. |
| Materials to Avoid | Strong oxidizers |
| Hazardous Decomposition Products | Oxides of carbon |
| Conditions to Avoid | Products of this type are stable and unlikely to react in a hazardous manner under normal conditions of use. This material is combustible after evaporation of the aqueous component. |

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA

The following results are for Ethylene Glycol.

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| Acute Oral Toxicity | LD50 (Rat) 4700mg/kg Lowest lethal dose (human) 786mg/kg Estimated lethal dose (human) 100ml |
| Acute Dermal Toxicity | LD50 (Rabbit) 9350mg/kg |
| Acute Inhalation Toxicity | (Rat) >5mg/kg |

SENSITIZATION

CHRONIC TOXICITY

CARCINOGENICITY

TERATOGENICITY

This product is not expected to be a sensitizer.
Contains ethylene glycol. Repeated high ingested doses of ethylene glycol in animal studies brain damage, kidney damage, degeneration of the liver and changes in blood chemistry. Similar effects may be caused in humans by repeated and/or prolonged exposure.
This product does not contain any substances that are listed as carcinogens.
Ethylene glycol has been shown to produce teratogenic effects in mice when high doses were ingested.



12. ECOLOGICAL INFORMATION

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| Ecotoxicity | No ecotoxicity studies have been done on this product. Ethylene glycol is classified as "readily" biodegradable according to the guidelines of the OECD. |
| Mobility | Not determined. |
| Bioaccumulation | Ethylene glycol does not bioaccumulate. |

13. DISPOSAL CONSIDERATIONS

Dispose of via an authorized person/licensed waste disposal contractor in accordance with local regulations.
Dispose of product and container carefully and responsibly.
Do not dispose of near ponds, ditches, down drains or onto soil.

14. TRANSPORT INFORMATION

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| UN Number | Not classified as a dangerous good according to the criteria of the ADG Code. |
| Proper Shipping Name | None allocated |
| DG Class | None allocated |
| Hazchem Code | A1 – Combustible Liquid |
| Packing Group | None allocated |

15. REGULATORY INFORMATION

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| POISON SCHEDULE | 5 |
| Hazardous according to the criteria of the National Health and Occupational Health and Safety Commission | |
| Classification | Xi – irritant Xn – harmful |
| Risk Phrases | R36/37/38 irritating to eyes, respiratory system and skin |
| Safety Phrases | S2 KEEP OUT OF REACH OF CHILDREN S24/25 avoid contact with skin and eyes S37/39 wear suitable gloves and eye protection S45 in case of accident or if you feel unwell, seek medical advice immediately. |

16. OTHER INFORMATION

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|------------------------------|---|
| Important Information | This SDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Australian Organic Coolants. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request. |
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| Contact Point | Peter Heath Director Tel No: 61 7 40512400 Fax No: 61 7 40315490 |
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END OF SDS

