



MATERIAL SAFETY DATA SHEET

1. Identification of Material and Supplier

Product Name	Coolant Fluid		
Part Numbers	16-25501		
Other Names	Anti-freeze		
Recommended Use	As a recirculating radiator coolant		
Supplier's Name	Independent Wholesale Welding Supply		
Address	Unit 2/170 Power Street, Glendenning, NSW. 2761		
All mail to:	PO Box 284 Doonside NSW 2767		
Telephone	61 2 8834 2400	Facsimile	61 2 8834 2498
Technical Support	61 2 8834 2400	E-mail Address iwws@iwws.net	
Web	www.iwws.net		

2. Hazards Identification

Hazardous Classification

This product is hazardous according to the criteria of the ASCC, is not DG Substance according to the ADG Code, is a Schedule 6 Poison according to the SUSDP, is a combustible liquid C 1 according to AS 1940 and all components are listed on the AICS.

Risk Phrases Xn, R 22 Harmful if swallowed

Safety Phrases S 2 Keep out of reach of children.

3. Composition Information on Ingredients

Chemical name	CAS Number	Proportion
Ethylene Glycol	107-21-1	10 - 30 %
Deionized water	7732-18-5	to 100 %

4. First Aid Measures

4.1 Symptoms of Exposure by Route

Ingested	Harmful if swallowed. Amounts less than 150 mg may produce toxic effects if swallowed. Larger amounts may cause abdominal pain and may adversely affect the central nervous system. Some cases have occurred where the patient suffered convulsions.
Eyes	May cause minor to severe eye irritation.
Skin	May cause minor to moderate irritation, small amounts may be absorbed through intact skin and have effects similar to those shown under Ingestion above. Prolonged or repeated skin exposure may lead to drying and cracking of the skin and dermatitis.
Inhaled	Prolonged exposure to high vapour concentrations may have adverse central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness and upper respiratory irritation. In severe cases unconsciousness may occur.

4.2 First Aid Instructions

Ingested	Do not induce vomiting unless following medical directions and medical help is more than 15 minutes away. Rinse mouth out with water. Give two 250 ml glasses of water to drink. If symptoms persist seek prompt medical assistance.
Eyes	Hold eyelids open and flush eyes with clean water for 15 minutes. Hold eyelids open and away from eye to ensure that the inside of the lids are carefully flushed clean. If symptoms persist or corneal damage is present seek prompt medical advice.
Skin	Remove contaminated clothing (under deluge shower if necessary). Wash affected area for 10 minutes with soap and water. Do not rub hard. Rinse well for a further 5 minutes and pat dry. If symptoms persist seek prompt medical advice.
Inhaled	Remove patient to fresh air. Loosen tight clothing and allow to rest. Treat for shock if required. Rinse mouth and nose with water. Provide artificial respiration if breathing stops. Unless recovery is prompt seek urgent medical advice.
First Aid Facilities	Provide normal industrial first aid facilities including eyewash stations and deluge showers, where appropriate, close to the area where product is in use.

Notes to Physician (for symptoms of over-exposure to this product see above)

Possible symptoms of Chronic Health Effects

Substance accumulation in the body may occur and cause concern after repeated or long-term exposures. May reduce fertility, have toxic effects on the unborn baby. May cause physical defects in the developing embryo.

Possible aggravated pre-existing conditions

Pregnant ladies are strongly advised to exercise great care to avoid exposure when working with this material.

Suggested treatment for acute symptoms, known antidotes

Provide supportive care and treatment based on the patient's reactions to the exposure. For further information contact the:

POISONS INFORMATION CENTRE 13 11 26

5. Fire Fighting Measures

5.1 Flammability and Explosion Hazards

Product is a Combustible Liquid C 1 according to the criteria of AS 1940-93.

5.2 Hazardous Combustion Products

In a fire will emit CO_x

5.3 Suitable Extinguishing Media

Use Carbon Dioxide, Alcohol-resistant foam or dry agents.

Hazchem Code: 1 [Z]

5.4 Precautions for Fire Fighters and Special Equipment

Wear SCBA and full turn out uniform.

6. Accidental Release Measures

6.1 Emergency Procedures – Spills and Leaks (See Section 13 for disposal considerations)

Prevent product entering drains or waterways. Switch off or remove ignition sources. Wear full protective clothing and respiratory protective equipment. Spread sand, soil or other inert absorbent over pool. When saturated collect into plastic or metal drums or pails. Fit lids, label and place in a safe area to await disposal. Thoroughly ventilate the area of the spill before continuing normal work.

7. Handling and Storage

7.1 Handling Advice

Wear suitable protective clothing. Keep away from sources of ignition.

7.2 Storage Advice

Store in accordance with AS 1940-93 and local regulations. Keep away from heat and ignition sources.

8. Exposure Controls/ Personal Protection

8.1 Exposure Standards

An Exposure Standard has been established for ethylene glycol by the ASCC:

<i>Substance</i>	<i>TWA</i>	<i>STEL</i>
Ethylene Glycol Vapour	60 mg/m ³	120 mg/m ³

8.2 Engineering Control Methods

Provide local exhaust fume extractors and ventilators capable of maintaining the workplace below the exposure standard above.

8.3 Personal Protective Equipment

Respiratory Protection	Not usually required. If vapours may exceed TWA the use of respirators with organic vapour filter to AS 1715 & 1716, air-supplied hoods or SCBAs is recommended .
Eye Protection	Not usually required but if splashes are likely wear safety glasses or goggles to AS 1337.
Gloves	Wear rubber or PVA gloves to AS 2161.
Clothing	Wear Tyvec or cotton coveralls fastened at the neck and wrists. Supplement with a waterproof apron as appropriate

9. Physical and Chemical Properties

Appearance	Clear liquid	Odour	Odourless
Melting Point	- 13°C	Boiling Point	197.7°C
Specific Gravity	1.115		
Flash Point	118°C	Flammability Limits	3.2 - 15.3 % v/v
Vapour Pressure	0.008 kPa	Vapour Density	2.14
Solubility (H₂O)	Miscible	AS1940 Class	C 1 Combustible liquid

Other Properties

Auto-ignition temperature: 398°C

10. Stability and Reactivity

Under normal circumstances of use and handling the product is stable.

11. Toxicological Information

LD₅₀ Oral Rat 4700 mg/kg. LD₅₀ Dermal Rabbit 19500 mg/kg. Human Oral LD_{Lo} 398 mg/kg

12. Ecological Considerations

Hazardous air pollutant.

13. Disposal Considerations

Disposal must be in accordance with local regulations for hazardous industrial wastes.

14. Transport Information

No DG regulatory requirements apply to the transport of this product.

15. Regulatory Information

Label in accordance with the "National Code of Practice for the Labeling of Workplace Substance" [ASCC: 2012 (1994)] with the word HAZARDOUS and the Risk and Safety Phrases given on page 1 of this MSDS and as a Schedule 6 Poison in accordance with the SUSDP. Label must display the word POISON on the first line of the label in bold face sans serif letters at least half the height of the largest letter or numeral on the label but need not be larger than 6mm on packages having 2L or less capacity or 15mm on package of more than 2L capacity.

16. Other Information

Disclaimer

No representative of IWWS any other person has the authority to alter or amend this MSDS or the information contained therein without the prior approval of IWWS management. Any alterations render this document invalid. The information presented in this MSDS is believed by Independent Wholesale Welding Supply to be accurate at the date shown and in accordance with information available to the Company. The circumstances and methods of using, handling, transporting or storing the material are beyond our control and persons using, handling, transporting or storing the product do so at their own risk. Independent Wholesale Welding Supply accept no liability for damage or injury arising from the use of the information contained herein.

Original Date New MSDS (Version 1.) to comply with National Code of Practice for the
of Issue: 07/12/2006 Preparation of Material Safety Data Sheets 2nd Edition NOHSC: 2011 (2003).

Data Sources used: in the preparation of this MSDS include: "Chempendium" and "MSDS plus Cheminfo" published in CD format by CCOHS Canada 2005 - 4. "TOMES" a CD database published by Micromedex, USA, "Hazardous Properties of Industrial Materials" Van Nostrand Reinhold NY, USA. "List of Designated Hazardous Substances" NOHSC 10005:1999, "National Exposure Standards" NOHSC 1003:1995.

Abbreviations used: n.d = not determined, n.a = not applicable, n.all =not allocated, SUSDP=Standard for the Uniform Scheduling of Drugs and Poisons, ADG=Australian Dangerous Goods Code, IATA =International Air Transport Association, (Dangerous Goods Regulations), IMDG=International Maritime Dangerous Goods (Code), ASCC=Australian Safety and Compensation Council. IARC=International Agency(for) Research (of) Cancer.