

MATERIAL SAFETY DATA SHEET

COMPANY DETAILS

COMPANY: Anglo Design A.C.N. 002 695 838
ADDRESS: 2 Beaumont Rd Mt Kuringai NSW 2080
TELEPHONE NUMBER: 02 9457 8566
EMERGENCY TELEPHONE NUMBER: 02 9457 8566 B.H.

IDENTIFICATION

PRODUCT NAME: **HDD Coolant 50**
OTHER NAMES: None.
MANUFACTURER'S PRODUCT CODE:

USE Heavy duty diesel coolant.

HAZARDS IDENTIFICATION

Hazard classification
Hazardous Substance. Non-Dangerous Goods.

This material is classified as hazardous according to health criteria of NOHSC Australia.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Hazard category
Xn Harmful

Risk phrase(s)
R22 Harmful if swallowed

Safety phrase(s)
S2 Keep out of reach of children.

Poisons schedule (Aust): S5

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

COMPOSITION/INFORMATION ON INGREDIENTS

Appearance: Dark green, oily liquid.

CHEMICAL ENTITY	CAS NO.	PROPORTION
Ethylene glycol	107-21-1	HIGH
Corrosion inhibitors	-	LOW
Denatonium benzoate *	3734-33-6	VLOW
Water	7732-18-5	HIGH
		100%

* Actual content at 26 ppm
PROPORTION (% weight/ weight):

Product Name: **HDD Coolant 50**
Issued: 24/8/2007

MATERIAL SAFETY DATA SHEET

VHIGH >60, HIGH 30-60, MED 10-29, LOW 1-9, VLOW <1

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 1126; New Zealand 0800 764 766.

Ingestion: Rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Seek immediate medical attention.

Eye contact: Irrigate with copious quantities of water for 15 minutes. In all cases of eye contamination it is a sensible precaution to seek medical attention.

Skin contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If irritation occurs seek medical attention. Wash contaminated clothing before re-use.

Inhalation: 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 laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a face mask. If breathing has stopped apply artificial respiration at once. In event of cardiac arrest, apply external cardiac massage. Seek immediate medical attention.

Medical attention and special treatment: Treat symptomatically and as for exposure to ethylene glycol.

FIRE-FIGHTING MEASURES

Suitable extinguishing media: For large fires use water fog, fine water spray or foam. Do not use water jets. For small fires use foam, dry chemical, carbon dioxide or water spray.

Hazards from combustion products: Not combustible, however following evaporation of aqueous component residual material can burn if ignited. On burning will emit toxic fumes including those of carbon monoxide and carbon dioxide.

Precautions for fire fighters and special protective equipment: Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion as well as structural fire fighters uniform.

Hazchem code: None assigned.

ACCIDENTAL RELEASE MEASURES

Emergency procedures: Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Do not touch or walk through spilled material.

Methods and materials for containment and clean up procedures: Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled drums for disposal. Wash area down with excess water to remove residual material.

HANDLING AND STORAGE

Precautions for safe handling: Avoid eye contact, repeated or prolonged skin contact and inhalation of vapour or aerosols. Always wash hands before smoking,

Product Name: **HDD Coolant 50**

Issued: 24/8/2007

Page 2 of 2

MATERIAL SAFETY DATA SHEET

eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Do not dispose of material to sewers or waterways.

Conditions for safe storage: Store in a cool place and out of direct sunlight. Store away from oxidising agents and foodstuffs. Keep containers closed at all times - check regularly for leaks.

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

EXPOSURE CONTROLS / PERSONAL PROTECTION

National exposure standards

No value assigned for this specific material by the National Occupational Health and Safety Commission (NOHSC Australia).

However, Exposure Standards for constituent:

	TWA		STEL		Notices
	ppm	mg/m ³	ppm	mg/m ³	
Ethylene glycol (vapour)	20	52	40	104	Skin
Ethylene glycol (particulate)	-	10	-	-	Skin

As published by National Occupational Health and Safety Commission (NOHSC Australia).

Exposure Standard (TWA) is the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour work day.

Skin Absorption Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

The Exposure Standards listed represent airborne concentrations of individual chemical substances which, according to current knowledge, should neither impair the health of, nor cause undue discomfort to, nearly all workers. They are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These Exposure Standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological limit values

Not relevant.

Engineering controls: Ensure ventilation is adequate to maintain air concentrations below Exposure Standard. If material is used at elevated temperatures or as an aerosol, use with local exhaust ventilation or while wearing respirator. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

Personal protective equipment: OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES (Short), RESPIRATOR.

Wear overalls, safety glasses and impervious gloves. Available information (2) suggests that gloves made from Neoprene, PVC, or natural rubber should be suitable for intermittent contact. However, due to variations in glove constructions and local conditions, a final assessment should be made by the user. If inhalation

MATERIAL SAFETY DATA SHEET

risk exists wear a half face-piece filter respirator suitable for organic vapours/particulates meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Dark green, oily liquid.

Solubility: Miscible with water and alcohols.

Density:	1.082 g/cm ³	Freezing Point (°C):	-37
Rel Vapour Density (air=1):	2.2*	Boiling Point (°C):	109
Vapour Pressure (20 °C):	0.01 kPa*	Decomp. Point (°C):	N Av
Flash Point (°C):	N App	Sublimation Point (°C):	N App
Flammability Limits (%):	3.2 - 12.8*	pH (neat):	7.8
Autoignition Temp (°C):	N Av	Viscosity:	N Av
% Volatile by volume:	50 (water)	Evaporation Rate:	N Av
Solubility in water:	N Av	(n-Butyl acetate=1)	

(Typical values only - consult specification sheet)

N Av = Not available N App = Not applicable

* = for ethylene glycol

STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions of use.

Conditions to avoid: Excessive heat will lead to accelerated oxidative degradation.

Incompatible materials: Reacts with strong oxidising agents.

Hazardous decomposition products: Carbon dioxide and carbon monoxide.

Hazardous reactions: None known.

TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled are:

Acute Effects

Ingestion: Initial symptoms following a large dose (>100 mL) are those of alcohol intoxication (without the odour of ethanol) progressing to vomiting, headache, stupor, convulsions and unconsciousness. (1)

Eye contact: May be an eye irritant.

Skin contact: Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis. Major ingredient, ethylene glycol, can be absorbed through the skin but not readily absorbed in toxic amounts (symptoms may be similar to those described for 'INGESTION'). (1)

Inhalation: Inhalation of vapours (from heating), mists or aerosols can produce respiratory irritation and may result in headaches, dizziness and possible nausea.

Long Term Effects: Animal studies have shown that long term repeated exposure to high doses of ethylene glycol in the diet causes kidney injury. (1)

Acute toxicity / Chronic toxicity

No LD50 data available for product, however for ethylene glycol;

Estimated minimum lethal dose (human) following ingestion of ethylene glycol is thought to be 1.4 mL/kg.

(3)

MATERIAL SAFETY DATA SHEET

SKIN: Mild irritant (rabbit, Draize). (3)

EYES: Mild irritant (rabbit, Draize). (3)

High doses of ethylene glycol in rat and mice have resulted in reproductive and developmental toxicity following exposure by the oral and inhalation (respirable aerosol) routes. These particular data sets are not considered relevant to normal industrial use but do emphasise the need for care in handling. (3)

Data from animal and human studies to date do not provide evidence that exposure to ethylene glycol has mutagenic or carcinogenic effects. (3)

ECOLOGICAL INFORMATION

Ecotoxicity

No LC50 data found for this material, however for the main constituent ethylene glycol:

96 hr LC50 (aquatic species): >100 mg/L. (3)

Non hazardous to aquatic organisms.

Persistence/degradability

No data found for material, however the main constituent, ethylene glycol, is expected to be readily biodegradable according to the AS 4351 Part 2 test method.

Mobility

No data found for material.

Avoid contaminating waterways.

DISPOSAL CONSIDERATIONS

Disposal methods: Empty containers should be forwarded to an approved agent for recycling. Avoid unauthorised discharge to sewer.

Special precautions for landfill or incineration: Material suitable for disposal by incineration or landfill through an approved agent.

TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

CONTACT POINT

TITLE:

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TELEPHONE NUMBER:

02 9457 8566

MATERIAL SAFETY DATA SHEET

All information contained in this Material Safety Data Sheet and the health, safety and environmental information are considered to be accurate to the best of our knowledge as of the issue date specified above. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the data and information contained in this data sheet.

Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Company accepts no responsibility for any injury, loss or damage, resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.