

MATERIAL SAFETY DATA SHEET

CLADOCIDE GOLD

Hazardous according to criteria of Worksafe Australia

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Recommended Use:	Cladocide Gold Additive to hydrocarbon fuels as a broad-spectrum biocide and oxidation stabiliser.
Company Identification:	Geotechnical Services Pty Ltd 41-45 Furnace Road Welshpool WA 6106
Telephone Number: Facsimile Number: Emergency Telephone:	(08) 9458 8877 (08) 9458 8857 (08) 9359 1003

HAZARDS IDENTIFICATION

Human Health Hazards:	Acute
Swallowed:	Slightly toxic. May produce signs of intoxication characterised by incoordination, dizziness, drowsiness, headache, nausea, mental confusion, possibly slurred speech, and stupor, depending on the quantity of material ingested.
Eye:	Causes severe irritation, experienced as discomfort or pain, excess blinking and tear production, marked excess redness and swelling of the conjunctiva, and chemical burns of the eye.
Skin:	Brief contact is not irritating. Prolonged contact causes mild to moderate local redness and swelling. Prolonged or widespread contact may result in the absorption of potentially harmful amounts of material.
Inhaled:	Vapour from heated material may cause headache, nausea, and dizziness.
Health Effects:	Chronic Prolonged or repeated overexposure to mist or vapour generated at high temperatures may result in the inhalation of harmful amounts of material.
Environmental Hazards:	Does not bioaccumulate. Acute toxicity - fish : LC50 : >100 mg/L Acute toxicity - daphnia : EC50 : >100 mg/L Acute toxicity - algae : IC50 : >100 mg/L

Composition / Information on Ingredients

Appearance :	Colourless transparent liquid with mild characteristic odour. C5H12O3, C6H14O3	
Formula:		
Boiling Point:	234 deg C	
Melting Point:	-68 deg C	
Vapour Pressure:	0.01 mm Hg (1 atmosphere)	
Specific Gravity:	0.953 (water = 1)	
Flash Point:	Open Cup 91 deg C	
pH:	(N/A)	
Solubility in water:	Sol. g/l (25 deg C)	
Flammability Limits (as percentage volume in air)		
Lower Explosion Limit:	0.9	
Upper Explosion Limit:	16	
<u>Other Properties</u>	Vapour density (air = 1) = 5.6 Autoignition temperature = 215 deg C	
<u>Ingredients</u>		
Chemical Entity	CAS No.	Proportions (%)
DIETHYLENE GLYCOL MONOMETHYL ETHER:		>60
DIETHYLENE GLYCOL MONOBUTYL ETHER:	[112-34-5]	<30
OTHER/ANTIOXIDANTS:	[128-37-0]	<3

FIRST AID MEASURES

Swallowed	If patient is fully conscious, give two glasses of water. Induce vomiting. Obtain medical attention.
Eye	Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.
Skin	Remove contaminated clothing. Wash skin with soap and water. Obtain medical attention if irritation persists. Wash clothing before re-use.
Inhaled	Remove to fresh air. Obtain medical attention if symptoms persist. Ensure an eye bath and safety shower are available and ready for use.
Advice to Doctor	There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient

FIRE FIGHTING MEASURES

Hazards from Combustion Products	Burning can produce the following combustion products : carbon monoxide and/or carbon dioxide.
Extinguishing Media	Apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.
Special Protective Equipment & Precautions for Fire Fighters	Fire-fighters should wear full protective clothing including self- contained breathing apparatus.

ACCIDENTAL RELEASE MEASURES

Spills	Clean-up personnel should wear full protective clothing including self-contained breathing apparatus in confined spaces. Remove all sources of ignition - NO SMOKING. Prevent contamination of soil and water. Prevent from spreading into drain, ditches or rivers by using sand, earth, or other appropriate barriers.
Disposal	Dispose of in accordance with all Local, State and Federal regulations at an approved waste disposal facility by incineration.

HANDLING AND STORAGE

Storage / Transport	Store in a cool, dry area away from direct heat or flames. Store in tightly sealed containers. Use with adequate ventilation. Use spark-proof tools and explosion-proof equipment. Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat, sparks or open flames.
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EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls	General (mechanical) room ventilation is expected to be satisfactory. Clean up affected areas with liquid-absorbent material.
Personal Protection	Wear appropriate protective eyeglasses or chemical safety goggles. Wear appropriate gloves and protective clothing to minimise contact with skin. Always wear an approved respirator when vapour concentrations are high.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Colourless transparent liquid with mild characteristic odour.
Formula :	C ₅ H ₁₂ O ₃ , C ₆ H ₁₄ O ₃
Boiling Point :	234 deg C
Melting Point :	-68 deg C
Vapour Pressure :	0.01 mm Hg (1 atmosphere)
Specific Gravity :	0.953 (water = 1)
Flash Point :	Open Cup 91 deg C
pH :	(N/A)
Solubility in water :	Sol. g/l (25 deg C)
Flammability Limits	(as percentage volume in air)
Lower Explosion Limit :	0.9
Upper Explosion Limit :	16
Vapour density (air = 1)	5.6 Autoignition temperature = 215 deg C
	Do not distill to dryness. Avoid excessive temperature or prolonged reflux, such as in batch distillations. Avoid strong alkalis, high temperatures in the presence of strong bases, acids or strong oxidising agents

STABILITY AND REACTIVITY

Flammability	This material has a relatively low autoignition temperature; 228 degrees C. Combustible liquid. Hazardous polymerisation will not occur.
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TOXICOLOGICAL INFORMATION

Toxicity Data	Oral LD ₅₀ = 2400 mg/kg (Mouse) ; 2200 mg/kg (Rabbit) ; 5660 mg/kg (Rat). Dermal LD ₅₀ = 2700 mg/kg (Rabbit). Inhalation LC ₅₀ = not available. Pregnant women should not be exposed to the product.
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ECOLOGICAL INFORMATION

Bioaccumulation	Does not bioaccumulate. Acute toxicity - fish : LC ₅₀ : >100 mg/L Acute toxicity - daphnia : EC ₅₀ : >100 mg/L Acute toxicity - algae : IC ₅₀ : >100 mg/L
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DISPOSAL CONSIDERATIONS

Disposal	Dispose of in accordance with all Local, State and Federal regulations at an approved waste disposal facility by incineration.
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TRANSPORT INFORMATION

UN No.:	N/A
UN Proper Shipping Name:	Cladocide Gold
Dangerous Goods Class:	N/A
Subsidiary Risk:	None Allocated
Hazchem Code:	N/A
Pack Group:0	0
EPG:	N/A
Poisons Schedule:	N/A

REGULATORY INFORMATION

Hazard	IRRITANT
Risk Phrases	R36 Irritating to eyes. R61 May cause harm to unborn child.
Safety Phrases	S26, S53-24/25-45 In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately.

OTHER INFORMATION

Poisons Information Centre	131 126
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