AGMIN CHELATES PTY LTD

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: KUPRAMINE ALGICIDE

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE:	**01 AUGUST 2008**
PRODUCT NAME:	**KUPRAMINE ALGICIDE**
OTHER NAMES:	
USES:	Control a wide spectrum of Algae
COMPANY DETAILS:	**AGMIN CHELATES PTY LTD**
ADDRESS:	32 Wattlepark Avenue MOOLAP VIC 3221
PHONE:	(03) 5248 3828
FAX:	(03) 5248 1603
EMAIL:	service@agmin.com.au
WEBSITE:	www.agmin.com.au
EMERGENCY:	0419 306 666
CHEMCALL AUSTRALIA:	1800 127 406
POISONS INFORMATION CENTRE:	13 11 26

SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT	CONC.	CAS NO:
Copper Ethylene Diamine Chelate	500 g/L	13426-91-0
Water	Remainder	7732-18-5

SECTION 3 – HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN NO:	None Allocated	**Hazchem Code:**	None Allocated	**Pkg Group:**	None Allocated
DG Class:	None Allocated	**Subsidiary Risk(s):**	None Allocated	**EPG:**	None Allocated

SECTION 4 – FIRST AID MEASURES

EYE: Hold eyelids apart and flush continuously with water. Continue until advised to stop by the Poisons Information Centre, a doctor, or for at least 15 minutes. Keep patient calm.

INHALATION: If over exposure occurs leave exposure area immediately. If irritation persists, seek medical attention.

SKIN: Gently flush affected areas with water. Seek medical attention if irritation develops.

INGESTION: DO NOT induce vomiting. Immediately wash out mouth with water, and then give water to drink. Seek medical attention.

ADVICE TO DOCTOR: Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABILITY: Non flammable. May evolve toxic sulphur oxides when heated to decomposition.

FIRE & EXPLOSION: Non flammable. Evacuate area and contact emergency services. Toxic gases (sulphur oxides) may be evolved when heated in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use water fog to cool intact containers and nearby storage areas.

EXTINGUISHING: Non flammable. Prevent contamination of drains or waterways; absorb runoff with sand or similar.

HAZCHEM: None Allocated.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

SPILLAGE: If split (bulk), contact emergency services. Wear a face shield, coveralls, PVC / rubber gloves, apron and boots. Where an inhalation risk exists wear a Type B (Inorganic and acid gas) respirator. Ventilate and clear area of all unprotected personnel. Absorb spill with sand or similar non-combustible material, collect and place in sealable containers for disposal.

SECTION 7 – STORAGE AND HANDLING

STORAGE: Store in cool, dry, well ventilated area, removed from oxidising agents (e.g. hypochlorites), acids, active metals, direct sunlight, heat sources and food stuff. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.

HANDLING: Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

VENTILATION: Do not inhale vapours or mists.

PPE: Avoid contact with eyes and skin. When using the prepared spray, wear cotton overall buttoned to the neck and wrist and a washable hat, elbow length PVC gloves and goggles. After each day's use, wash gloves, goggles and contaminated clothing.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Purple Viscous Liquid	**SOLUBILITY (WATER):**	Soluble
ODOUR:	Slight Ammoniacal Odour	**SPECIFIC GRAVITY:**	1.24
pH:	9.6	**% VOLATILES:**	Not Available
VAPOUR PRESSURE:	As Water	**FLAMMABILITY:**	Not Flammable
VAPOUR DENSITY:	3.9	**FLASH POINT:**	Not Available
MELTING POINT:	Not Applicable	**UPPER EXPLOSION LIMIT:**	Not Available
BOILING POINT:	103°C	**LOWER EXPLOSION LIMIT:**	Not Available
EVAPORATION RATE:	<1	**AUTOIGNITION TEMPERATURE:**	Not Available

SECTION 10 – STABILITY AND REACTIVITY

REACTIVITY: Incompatible with oxidising agents (e.g. peroxides), acids (e.g. sulphuric acid), active metals (e.g. aluminium, potassium, magnesium) and heat and ignition sources.

DECOMPOSITION PRODUCTS: May evolve toxic sulphur oxides when heated to decomposition.

SECTION 11 – TOXICOLOGICAL INFORMATION

EYES & SKIN: Corrosive. Attacks eyes, nose, throat and skin. Avoid contact with eyes and skin. Repeat exposure may cause allergic reaction.

INHALATION: Low to moderate irritant. Over exposure may result in mucous membrane irritation of the nose and throat and coughing. At high levels nausea, dizziness and headache. Due to the low vapour pressure of this product an inhalation hazard is not anticipated unless heated or sprayed.

SKIN: Irritant. Prolonged and repeated contact may result in irritation, skin rash and dermatitis.

INGESTION: Harmful if swallowed.

TOXICITY DATA: Copper Sulphate has moderate to high oral toxicity in rats (LD_{50}: 300 mg/Kg) and mice (LD_{50}: 50 mg/Kg).

SECTION 12 – ECOLOGICAL INFORMATION

ENVIRONMENT: Kupramine is an aquatic algicide to be used at a maximum concentration of 1.0 mg/L as Copper. This Copper concentration will decline rapidly within 48 hours to less than 0.1 mg/L as Copper. Do not discharge Kupramine treated water into rivers and lakes without the authority of the appropriate State or Territory Regulatory Authority. Any discharge should be two days after treatment under high flow conditions, with a dilution factor of 1:160.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result. Empty containers should be triple rinsed before disposal.

LEGISLATION: Dispose of in accordance with relevant logical legislation.

SECTION 14 – TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

SHIPPING NAME: None Allocated

UN NO:	None Allocated	**DG CLASS:**	None Allocated	**SUBSIDIARY RISKS:**	None Allocated
PKG GROUP:	None Allocated	**HAZCHEM CODE:**	None Allocated	**EPG:**	None Allocated

SECTION 15 – REGULATORY INFORMATION

POISON SCHEDULE: A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS: All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

SECTION 16 – ADDITIONAL INFORMATION

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

EXPOSURE STANDARDS – TIME WEIGHTED AVERAGE (TWA) OR WES (WORKPLACE EXPOSURE STANDARD) (NZ): Exposure standards are established on the premises of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

LEGEND TO ABBREVIATIONS AND ACRONYMS:

<	Less than
>	Greater than
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service (Registry Number)
CO2	Carbon Dioxide
COD	Chemical Oxygen Demand
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substance and New Organism
IDLK	Immediately Dangerous to Life and Health
LC50	LC stands for “Lethal Concentration”. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 to 4 hours.
LD50	LD stands for “Lethal Dose”. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
Misc	Miscible
N/A	Not Applicable
NIOSH	National Institute for Occupational Safety and Health
NOHSC	National Occupational Health and Safety Commission
OECD	Organisation for Economic Co-operation and Development
PEL	Permissible Exposure Limit
RCP	Reciprocal Calculation Procedure
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nations (number)
cm2	Squared centimetres
deg C (‘C)	Degrees Celsius
g	Gram
g/cm3	Grams per cubic centimetre
g/L	Grams per litre
immiscible	Liquids are insoluble in each other
Kg	Kilogram
Kg/m3	Kilograms per cubic metre
Ltr	Litre
m3	Cubic Metre
mPa.s	Milli Pascal per second
mbar	Millibar

SECTION 16 – ADDITIONAL INFORMATION CONTINUED

mg	Milligram
mg/24H	Milligrams per 24 hours
mg/Kg	Milligrams per Kilogram
mg/m3	Milligrams per cubic metre
miscible	Liquids form one homogeneous liquid phase regardless of the amount of either component present
mm	Millimetre
ppb	Parts per billion
ppm	Parts per million
ppm/2h	Parts per million per 2 hours
ppm/6h	Parts per million per 6 hours
tne	Tonne
ug/24H	Micrograms per 24 hours
wt	Weight
CNS	Central Nervous System
pH	Relates to hydrogen ion concentration. This value will relate to a scale of 0 – 14, where 0 is highly acidic and 14 is highly alkaline
NOS	Not Otherwise Specified
CAS #	Chemical Abstract Service Number used to uniquely identify chemical compounds
M	Moles per litre, a unit of concentration
IARC	International Agency for Research on Cancer.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate. Appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While **Agmin Chelates Pty Ltd** has taken all due care to include accurate and up to date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, **Agmin Chelates Pty Ltd** accepts no liability for any consequences of their reliance on the information contained in this MSDS.

MSDS Date: 01 August 2008

END OF REPORT