

Mountain Cleaning Products

7/7 Snow St., SOUTH LISMORE. 2480
Phone: (02) 66228733
Fax: (02) 66228744
Emergency: 0404 226509

MATERIAL SAFETY DATA SHEET

Product: **COMBAT MOSSKILLER**
Date of Issue: March 2009
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Email: support@mountaincleaning.com.au

SECTION 1 – STATEMENT OF HAZARDOUS NATURE, CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

This product is classified as **HAZARDOUS** according to criteria of the National Occupational Health and Safety Commission Australia. This product is classified as **Dangerous Goods Class 8** according to the Australian Dangerous Goods (ADG) Code. This product is classified as a **Schedule 6 Poison** according to the SUSDP.

SUPPLIER:	MOUNTAIN CLEANING PRODUCTS		
ADDRESS:	7/7 Snow Street, South Lismore, NSW, 2480		
Trade Name:	“ COMBAT MOSSKILLER ”		
TELEPHONE:	(02) 66228733	FAX:	(02) 66228744
AH EMERGENCY TELEPHONE:	13 1126 in Australia.	ABN:	51 147 855 418
Substance:	Thick Liquid	Product Use:	Moss controller
Creation Date:	MARCH 2009	Revision Date:	MARCH 2014
Product Code:	6403R		

SECTION 2 – HAZARDS IDENTIFICATION

Approved Criteria Classification (calculated)	Xn: Harmful C – Corrosive R22 – harmful if swallowed R34 – Causes burns. R41 – Risk of serious damage to eyes S(1/2) – Keep locked up and out of reach of children. S22 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.. S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible). S62 – If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.		
UN Number	1760	ADG Classification	8
Shipping Name	CORROSIVE LIQUID, N.O.S. CONTAINS ALKYLDIMETHYLENZYL AMMONIUM CHLORIDE	ADG Subsidiary Risk	none allocated
Hazchem Code	2R	Packing Group	II
SUSDP Classification	S6 POISON		
EMERGENCY OVERVIEW			
Colour	colouress	Odour	faint odour
Physical Description	Liquid	Viscosity	Non-viscous liquid
Major Health Hazards	CORROSIVE – skin, eyes, mucous membranes.		



SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients determined not to be hazardous are present in concentrations that do not exceed the relevant cut-off concentrations as found from NOHSC publication “List of Designated Hazardous Substances” or have been found NOT to meet the criteria of a hazardous substance as defined in the NOHSC publication “Approved Criteria for Classifying Hazardous Substances”.

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Ingredients:	CAS Number:	Proportion:	Exposure Standards TWA	Exposure Standards STEL
Benzyl alkyl dimethyl ammonium chloride	8001-54-5	<60 % w/w	Not set	Not set

The TWA exposure value is the Time Weighted Average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SECTION 4 – FIRST AID MEASURES

Scheduled Poisons	Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons. (Phone Australia 131126 or New Zealand 03 474 7000).
First Aid Facilities	Normal washroom facilities. Safety shower and emergency eye wash.
Inhalation	Remove victim to fresh air away from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position, keep warm and to rest. 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. Seek immediate medical advice (e.g. doctor).
Skin contact	Wash skin with plenty of water. Remove contaminated clothing and wash before re-use. Seek medical advice (e.g. doctor) if irritation, burning or redness develops.
Eye contact	Immediately irrigate with copious quantities of water for at least 20 minutes. Eyelids to be held open. Seek medical advice (e.g. ophthalmologist).
Ingestion	Do NOT induce vomiting. Do NOT attempt to give anything by mouth to an unconscious person. Rinse mouth thoroughly with water immediately. Give water to drink. If vomiting occurs, give further water to achieve effective dilution. Seek medical advice (e.g. doctor).
Advice to Doctor	No specific antidote. Treat symptomatically. All treatments should be based on observed signs and symptoms of distress of the patient. Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons.
Aggravated Medical Conditions	None known.

SECTION 5 – FIRE FIGHTING MEASURES

Fire and Explosion Hazards	Water based. Not combustible. However if involved in a fire will emit toxic fumes. Can react with metals to produce flammable hydrogen gas.
Extinguishing Media	Use carbon dioxide (CO ₂) fire extinguisher, water fog or fine water spray.
Fire Fighting	Keep containers exposed to extreme heat cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of combustion or decomposition. Evacuate area - move upwind of fire.
Flash Point	None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures	HAZCHEM CODE : 2X 2 = water fog – in the absence of fog, a fine spray may be used. X = No risk of violent explosion, Full protective clothing, Contain Spills.
Occupational Release	Minor spills do not normally need any special clean-up measures. In the event of a major spill, prevent spillage from entering drains or water courses. Wear appropriate protective equipment as in section 8 below to prevent skin and eye contamination. Spilt material may result in a slip hazard and should be absorbed into dry, inert material (e.g. sand, earth or vermiculite), which then can be put into appropriately labelled drums for disposal by an approved agent according to local conditions. Wash area down with excess water. Residual deposits will remain slippery. If contamination of sewers or waterways has occurred advise the local emergency services. In the event of a large spillage notify the local environment protection authority or emergency services.

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SECTION 7 – HANDLING AND STORAGE	
Handling	When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with water after handling.
Storage	Store in a cool, dry, place with good ventilation. Avoid storing in aluminium and light alloy containers. Store away from incompatible materials (Section 10). Keep containers closed at all times – check regularly for leaks.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits	National Occupational Exposure Limits, as published by National Occupational Health & Safety Commission: Time-weighted Average (TWA): None established for specific product. See SECTION 3 for Exposure Limits of individual ingredients. Short Term Exposure Limit (STEL): None established for specific product. See SECTION 3 for Exposure Limits of individual ingredients.
Biological Limit Value	None established for product.
Engineering Controls	Ensure ventilation is adequate to maintain air concentrations below exposure standards. Avoid generating mists of the product. Use only in a well-ventilated area. Ensure airflow, where this product is used, is directed away from the operators. Where high contaminant spray mist or vapour levels exist, ie, approaching the exposure limit, the following additional equipment is required: For short elevated exposures, eg, spillages:- Appropriate organic vapour cartridge respirator as per the requirements of AS/NZS 1715 and AS/NZS 1716 (Respiratory protective devices). For prolonged exposure and confined spaces:- full face air supplied or self contained breathing apparatus (if vapour levels exceed the Exposure Limit by more than ten times, air supplied apparatus should be used).
Personal Protective Equipment	Use good occupational work practice. The use of protective clothing and equipment depends upon the degree and nature of exposure. Final choice of appropriate protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. The following protective equipment should be available;
Eye Protection 	The use of chemical goggles or a face shield is recommended. Contact lenses pose a special hazard ; soft lenses may absorb irritants and all lenses concentrate them.
Skin Protection 	Overalls, apron, rubber boots and elbow length gloves are recommended for handling the concentrated product (as per AS/NZS 2161, or as recommended by supplier) to handle in quantity, cleaning up spills, decanting, etc.
Protective Material Types	Material suitable for alkaline detergent contact – Butyl rubber, Natural Latex, Neoprene, PVC, and Nitrile.
Respirator 	If the exposure limit is exceeded briefly, a full facepiece respirator with an organic vapour cartridge may be worn. For short elevated exposures, eg, spillages:- Appropriate organic vapour cartridge respirator as per the requirements of AS/NZS 1715 and AS/NZS 1716 (Respiratory protective devices). For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. Exposure Limit by more than ten times, air supplied apparatus should be used). WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres. EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATION OR IDLH CONDITIONS: Positive pressure, with full-facepiece SCBA or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA. (3M Respirator Selection Guide) Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. ABBREVIATIONS: SAR = supplied air respirator. SCBA = self contained breathing apparatus.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Viscous liquid	Colour	clear
Odour	faint odour.	Specific Gravity	1.1 – 1.2 @ 25 °C
Boiling Point	Approximately 100 °C.	Freezing Point	Approximately 0 °C
Vapour Pressure	Not available	Vapour Density	Not available.

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Flash Point	Not flammable	Flammable Limits	none
Water Solubility	Soluble in water.	pH	7 neat
Volatile Organic Compounds (VOC)	0 % v/v.	Coefficient of Water/Oil Distribution	Not available.
Viscosity	Not available.	Odour Threshold	Not available.
Evaporation Rate	Not available.	Per Cent Volatile	Ca 75 % v/v.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability	Stable at normal temperatures and pressure.
Conditions to Avoid	Avoid contact with foodstuffs.
Incompatible Materials	Incompatible with oxidizing agents
Hazardous Decomposition Products	Oxides of Carbon. Oxides of Nitrogen
Hazardous Reactions	None known

SECTION 11 – TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Ingestion	
short term exposure	Swallowing can result in nausea, vomiting of blood and eroded tissue; chemical burns of the mouth, throat & abdomen; perforation of the gastrointestinal tract.
long term exposure	No information available. There have been no documented effects due to long-term exposure to potassium hydroxide.
Skin contact	
short term exposure	Contact with skin will result in severe irritation. Corrosive to skin – may cause skin burns.
long term exposure	Prolonged and repeated skin contact with diluted solutions may induce eczematoid dermatitis. Development of a defatting dermatitis on prolonged contact with potassium hydroxide has been reported.
Eye contact	
short term exposure	A severe eye irritant. Contamination of eyes can result in permanent injury
long term exposure	Repeated overexposure may lead to chronic conjunctivitis.
Inhalation	
short term exposure	Inhalation of mists or aerosols can produce mucous membrane and respiratory irritation. Exposure to high concentrations of the product in liquid form or as a mist may lead to possible harmful corrosive effects including lesions of the nasal septum, pulmonary edema, pneumonitis and emphysema.
long term exposure	No information available for this product.
NOHSC	No significant ingredient is classified as carcinogenic by NOHSC.
NTP	No significant ingredient is classified as carcinogenic by NTP.
IARC	No significant ingredient is classified as carcinogenic by IARC.
Medical conditions aggravated by exposure	Persons with pre-existing skin disorders or eye problems, or impaired kidney or respiratory function may be more susceptible to the effects of the substance.

PRODUCT MIXTURE INFORMATION

Local Effects	Corrosive: eye, skin, inhalation and ingestion.
Target Organs	Eyes, mucous membranes, skin, lungs.

CLASSIFICATION OF INDIVIDUAL INGREDIENTS

Ingredients	R-Phrases.
Benzyl Alkyl dimethyl ammonium chloride	R22,R34 R41

Individual Ingredient Information

NOTE : This information relates to each individual ingredient, when evaluated as pure undiluted chemical. See Section 3 for proportions of ingredients present in the product.

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SECTION 12 – ECOLOGICAL INFORMATION	
Fish toxicity	None available.
Algae toxicity	None available.
Invertebrates toxicity	None available.
Toxicity to Bacteria	None available.
OECD Biological degradation	Individual components stated to be biodegradable.
General	Product miscible in all proportions with water. DO NOT DISCHARGE BULK QUANTITIES INTO DRAINS, WATERWAYS, SEWER OR ENVIRONMENT. Inform local authorities if this occurs. The pH rise is responsible for the environmental effect on the aquatic life. If not neutralized, this product can be toxic for aquatic organism because of its alkalinity. PH >9 has a corrosive effect on fish (possibly causing death). PH >8.5 will result in destruction of algae.

SECTION 13 – DISPOSAL CONSIDERATIONS	
	Refer to State Land Waste Management Authority. Transfer product residues to a labelled, sealed container for disposal or recovery. Waste disposal must be by an accredited contractor. Do not put down the drain.

SECTION 14 – TRANSPORT INFORMATION			
UN Number	1760	ADG Classification	8
Shipping Name	CORROSIVE LIQUID, N.O.S. CONTAINS: ALKYLDIMETHYLBENZYL AMMONIUM CHLORIDE	ADG Subsidiary Risk	none allocated
Hazchem Code	2X	Packing Group	II
Segregation	This material is a Class 8 Corrosive Substance according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 8 - Corrosive Substances are incompatible in a placard load with any of the following: Class 1, Explosives, Class 4.3, Dangerous When Wet Substances, Class 5.1, Oxidizing Agents & Class 5.2 Organic Peroxides, Class 6, Toxic Substances (where the Toxic substances are cyanides and the corrosives are acids), Class 7, Radioactive Substances, Class 8, Corrosive Substances (concentrated strong acid is to be segregated from strong alkali), and are incompatible with food and food packaging in any quantity.		

SECTION 15 – REGULATORY INFORMATION	
AICS	All ingredients present on AICS.

SECTION 16 – OTHER INFORMATION			
Labeling Details	HAZARD	C	CORROSIVE
	RISK PHRASES	R34	Causes burns.
	SAFETY PHRASES	S(1/2)	Keep locked up and out of reach of children.
		S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
		S28	After contact with skin, wash immediately with plenty of soap-suds.
		S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
		S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).
		S50	Do not mix with acids.
	SUSDP	S6	POISON
	ADG Code	8	CAUSTIC ALKALI LIQUID, N.O.S.

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Acronyms	SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons.	
	ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail.	
	CAS Number	Chemical Abstracts Service Registry Number.	
	UN Number	United Nations Number.	
	R-Phrases	Risk Phrases.	
	HAZCHEM	An emergency action code of numbers and letters which gives information to emergency services.	
	NOHSC	National Occupational Health and Safety Commission.	
	NTP	National Toxicology Program (USA).	
	IARC	International Agency for Research on Cancer.	
	AICS	Australian Inventory of Chemical Substances.	
	TWA	Time Weighted Average	
	STEL	Short Term Exposure Limit	
Literature References	List of Designated Hazardous Substances [NOHSC:10005(1999)]		
	Australian Code For The Transport Of Dangerous Goods By Road And Rail – Sixth Edition.		
	Standard for the Uniform Scheduling of Drugs and Poisons.		
	National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]		
	Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]		
	Material Safety Data Sheets – individual raw materials – Suppliers.		
	HSIS – Hazardous Substance Information System – National Worksafe Data Base.		
Revision Information	New Issue to standard : 2nd Edition [NOHSC:2011(2003)].		
Note	Safety Data Sheets are updated frequently. Please ensure that you have a current copy.		
Contact Point	Regulatory Affairs Manager.	Telephone	(02) 66228733
Issue Date	MARCH 2009	Supersedes Issue Date	NEW MSDS
<p>This MSDS summarizes at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since the supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this supplier.</p>			