

Mountain Cleaning Products

7/7 Snow St, SOUTH LISMORE. 2480

Phone: (02) 66228733

Fax: (02) 66228744

Emergency: 0404 226509

MATERIAL SAFETY DATA SHEET

Product: **CRYSTAL DISHWASHER POWDER**

Date of Issue: AUGUST 2010

Page: 1 of 7


Email: support@mountaincleaning.com.au

SECTION 1 – STATEMENT OF CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER:	MOUNTAIN CLEANING PRODUCTS		
ADDRESS:	7/7 Snow Street, South Lismore, NSW, 2480		
Trade Name:	CRYSTAL DISHWASHER POWDER (Previously known as Auto Dishwash powder-Sep safe)		
TELEPHONE:	(02) 66228733	FAX:	(02) 66228744
AH EMERGENCY TELEPHONE:	13 1126 in Australia.	ABN:	51 147 855 418
Substance:	Water based cleaner.	Product Use:	Detergent
Creation Date:	AUG 2010	Revision Date:	AUG 2015
Product Code:			

SECTION 2 – HAZARDS 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 5 Poison** according to the SUSDP.

Approved Criteria Classification	C - CORROSIVE. R34 - Causes burns. R37- Irritating to respiratory system. S(1/2) – Keep locked up and out of reach of children. S24/25 – Avoid contact with skin and eyes. S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection. S22 - Do not breathe dust. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).		
			
UN Number	1759	ADG Classification	8
Shipping Name	CORROSIVE SOLID, N.O.S.	ADG Subsidiary Risk	none allocated
Hazchem Code	2X	Packing Group	III
SUSDP Classification	S5 POISON		

EMERGENCY OVERVIEW

Colour	WHITE POWDER	Odour	faint odour
Physical Description	POWDER	Viscosity	powder
Major Health Hazards	None known.		

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".

Ingredients:	CAS Number:	Proportion:	Exposure Standards TWA	Exposure Standards STEL
Disodium metasilicate	6834-92-0	30 - 60% w/w	Not set – REC: 2 mg/m3 ceiling	not set
Sodium carbonate	497-19-18	10 – 30% w/w	Not set – REC: 10 mg/m3	not set
Sodium percarbonate	15630-89-4	10 - 30 % w/w	10 mg/m3 - inspirable dust	not set
Ingredients determined to be non-hazardous	various	10 - 30 % 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

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Product: **CRYSTAL DISHWASHER POWDER**

Date of Issue: AUGUST 2010

Page: 2 of 7

Email: support@mountaincleaning.com.au

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 if handling in quantity.
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. 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	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	Not combustible. However if involved in a fire will emit toxic fumes.
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, wear full protective clothing, contain spills.
Occupational Release	Minor spills do not normally need any special clean-up measures. Rinse with water. 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 should be shoveled up into appropriately labelled drums for disposal by an approved agent according to local conditions. Flush spill area with water to remove residues – if required, use acids to neutralize. 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.

SECTION 7 – HANDLING AND STORAGE

Handling	Avoid contact with incompatible materials. 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.

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Product: CRYSTAL DISHWASHER POWDER

Date of Issue: AUGUST 2010

Page: 3 of 7

Email: support@mountaincleaning.com.au

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 dusts of the product. Use only in a well-ventilated area.
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 to handle in quantity. 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 	Not required for normal dishwashing applications. Other handling situations: if the exposure limit is exceeded briefly, a dust particulate mask 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.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Free flowing powder	Colour	white
Odour	citrus odour	Specific Gravity	1.1 – 1.2 @ 25 °C
Boiling Point	Not available	Freezing Point	Approximately 0 °C
Vapour Pressure	Not available	Vapour Density	Not available
Flash Point	Not flammable	Flammable Limits	none
Water Solubility	Miscible in all proportions	pH	12 - 13 @ 1% sol'n
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 5 % v/v

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability	Stable at normal temperatures and pressure. Contamination of product and exposure to light and heat will accelerate decomposition.
Conditions to Avoid	ACIDS: violent reaction can occur, yielding heat and pressure which can burst an enclosed container. Reacts slowly with ambient air (particularly carbon dioxide) which may cause certain insoluble salts to form in solutions.
Incompatible Materials	Incompatible with amines, ammonium salts, aziridine, methanol and phenylacetonitrile. Reacts with metal salts and reducing agents.

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Product: CRYSTAL DISHWASHER POWDER

Date of Issue: AUGUST 2010

Page: 4 of 7

Email: support@mountaincleaning.com.au

Hazardous Decomposition Products	Product can decompose on combustion to form Carbon Monoxide, Carbon Dioxide, and other possibly toxic gases and vapours.
Hazardous Reactions	None known.

SECTION 11 – TOXICOLOGICAL INFORMATION

PRODUCT MIXTURE INFORMATION

Local Effects	Corrosive: eye, skin, inhalation and ingestion.
Target Organs	Eyes, mucous membranes, skin, lungs.
POTENTIAL HEALTH EFFECTS	
Ingestion	
short term exposure	Corrosive. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain, convulsions, chemical burns, loss of consciousness and possible death. Ingestion of dry or liquid formulations containing 10% or higher concentration of the product can result serious injury to health.
long term exposure	No information available.
Skin contact	
short term exposure	Corrosive to the skin - may cause skin burns.
long term exposure	Prolonged and repeated skin contact may induce eczematoid dermatitis.
Eye contact	
short term exposure	Corrosive - causes burns. Corrosive to eyes; contact will result in corneal burns with possible risk of serious damage to the eyes.
long term exposure	No information available.
Inhalation	
short term exposure	Exposure to generated dusts of this product may cause severe irritation to the respiratory tract with sore throat, coughing, shortness of breath, and delayed lung edema. Inhalation of granules will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary oedema, pneumonitis and emphysema.
long term exposure	Prolonged or repeated exposure to dusts may result in respiratory disorders.
Carcinogen Status	
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.

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.

CLASSIFICATION OF INDIVIDUAL INGREDIENTS

Ingredients	R-Phrases.
Sodium carbonate	R36
Disodium metasilicate	R34, R37
Sodium percarbonate	R8, R36/38

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Product: CRYSTAL DISHWASHER POWDER

Date of Issue: AUGUST 2010

Page: 5 of 7

Email: support@mountaincleaning.com.au

100% SODIUM CARBONATE	
Irritation Data	Repeated or prolonged skin contact may result in dermatitis and/or ulceration of the skin. Prolonged inhalation may lead to perforation of the nasal septum. SKIN IRRITATION (rabbit): Moderate skin irritant (500 mg; 24 hr-exposure) EYE IRRITATION (rabbit): Severe eye irritant (100 mg; 24 hr-exposure) Male rats exposed to an aerosol of a 2% aqueous solution of sodium carbonate (particle size less than 5 microns in diameter) for 4 hours/day, 5 days/week for 3 1/2 months showed no pronounced effects. Exposure to extremely high concentrations (approx. 70 mg/m ³) resulted in reduction in weight gain and cellular changes in the lungs (probably due to irritation). SKIN: 50% aqueous solution applied to intact and abraded skin of rabbits, guinea pigs and human volunteers. No effect on intact skin. Abraded guinea pig skin affected minimally. Abraded rabbit and human skin showed mild irritation. Pregnant mice, rats and rabbits orally intubated (intra-gastric administration) with low to very high doses of aqueous sodium carbonate solution. No positive findings reported.
Toxicity Data	Lethal dose (rat, oral): 4000 mg/kg LC50 (rat, inhalation): 2100-2500 mg/m ³ ; duration of exposure, 2 hr. (91% sodium carbonate aerosol); whole body exposure (3). LC50 (mouse, inhalation): 1200 mg/m ³ ; duration of exposure, 2 hr. (95% sodium carbonate aerosol); whole body exposure (3). LC50 (guinea pig, inhalation): 800 mg/m ³ ; duration of exposure, 2 hr. (95% sodium carbonate aerosol); whole body exposure (3).
Local Effects	Corrosive/Irritant: inhalation, skin, eye.
Target Organs	Eyes, skin, mucous membranes.
Acute Toxicity	No available information.
Mutagenic Data	No available information.
Reproductive Effects	No available information.

100% Disodium metasilicate:	
Irritation Data	Hazardous in case of skin contact (corrosive), of ingestion (corrosive), of inhalation (lung irritant). Causes burns Eye: Risk of serious damage to eyes. Respiratory: Irritating to respiratory system. Sensitization: No sensitizing (30% w/w in a formulation). 250 mg/24 hour(s) skin-human : severe 250 mg/24 hour(s) skin-rabbit : severe 250 mg/24 hour(s) skin-guinea pig : moderate.
Toxicity Data	1153 mg/kg oral-rat LD50; 770 mg/kg oral-mouse LD50; 250 mg/kg oral-dog LDLo; 250 mg/kg oral-pig LDLo; 200 mg/kg intraperitoneal-guinea pig LDLo. Other toxicological information: The toxic effects of the product are caused by the alkalinity and not by substance specific corrosive nature of the product.
Local Effects	Corrosive: inhalation, skin, eye, ingestion
Target Organs	Skin, mucous membranes, eyes.
Acute Toxicity Level	Moderately Toxic: ingestion
Mutagenic Data	Gentoxicity: Not mutagenic (in vitro)
Reproductive Effects Data	15 gm/kg oral-rat TDLo 14 week(s) male week(s) pre pregnancy/14 week(s) post pregnancy/3 week(s) continuous; 9766 ug/kg subcutaneous-rat TDLo 1 day(s) male; 9766 ug/kg intratesticular-rat TDLo 1 day(s) male.

100% Sodium percarbonate	
Irritation Data	Dermal: LD50, rabbit, >2000 mg/kg. Irritation: Rabbit, Severe damage (eyes). Rabbit, Slight irritant (skin).
Toxicity Data	Oral: LD50, rat (combined sexes), 1034 mg/kg. Inhalation: LC50, 1 hour, rat, >4580 mg/m ³ .
Local Effects	Irritant: inhalation, skin, eye.
Target Organs	Skin, eyes, mucous membranes.
Acute Toxicity Level	Toxic: inhalation, dermal absorption, ingestion.
Sensitisation Data	No sensitization was noted when administered as a 75% w/v mixture during induction & as a 25% w/v mixture at challenge.
Reproductive Effects	No data.

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Product: **CRYSTAL DISHWASHER POWDER**

Date of Issue: AUGUST 2010

Page: 6 of 7

Email: support@mountaincleaning.com.au

SECTION 12 – ECOLOGICAL INFORMATION

Fish toxicity	None available for this specific product. Individual ingredients: The following information relates to Sodium, Silicate, Solution, Molar > 3,2 concentration 35% (IUCLID). Ecotoxicity: Fish: 96h - LC50 (Brachydanio rerio, OECD no. 203) : 3185 mg/l (pH 10.1) Daphnia: 48 h - EC50 (Daphnia magna): 4857 mg/l. Daphnia: 48 h - EC50 (Daphnia magna): 4857 mg/l
Algae toxicity	None available for this specific product.
Invertebrates toxicity	None available.
Toxicity to Bacteria	None available for this specific product. Individual ingredients: The following information relates to Sodium, Silicate, Solution, Molar > 3,2 concentration 35% (IUCLID). Bacteria: 48 h - EC 0 (Pseudomonas putida, OECD no. 209) > 1000mg/l (pH 7.9)
OECD Biological degradation	Individual components stated to be biodegradable. The following information relates to Sodium, Silicate, Solution, Molar > 3,2 concentration 35% (IUCLID). Environmental behaviour: Degradation abiotic: In aqueous solution of pH < 9 the silicate is mineralized and precipitated. The maximum concentration of soluble silicates at this pH is 120 mg/l. Degradation Biotic: not applicable. Other information: 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.
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.

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.
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SECTION 14 – TRANSPORT INFORMATION

UN Number	1759	ADG Classification	8
Shipping Name	CORROSIVE SOLID, N.O.S.	ADG Subsidiary Risk	none allocated
Hazchem Code	2X	Packing Group	III
Packaging Method	3.8.8	Special Provisions	SP109, 185, 274
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.
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SECTION 16 – OTHER INFORMATION

Labeling Details	HAZARD	CORROSIVE
	RISK PHRASES	R34- Causes burns. R37- Irritating to respiratory system.

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MATERIAL SAFETY DATA SHEET

Product: **CRYSTAL DISHWASHER POWDER**

Date of Issue: AUGUST 2010

Page: 7 of 7

Email: support@mountaincleaning.com.au

	SAFETY PHRASES	S(1/2) – Keep locked up and out of reach of children. S24/25 – Avoid contact with skin and eyes. S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection. S22 - Do not breathe dust. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).	
	SUSDP	S5 POISON	
	ADG Code	CORROSIVE SOLID, N.O.S.	
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	AUGUST 2010	Supersedes Issue Date	1st Issue
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.			